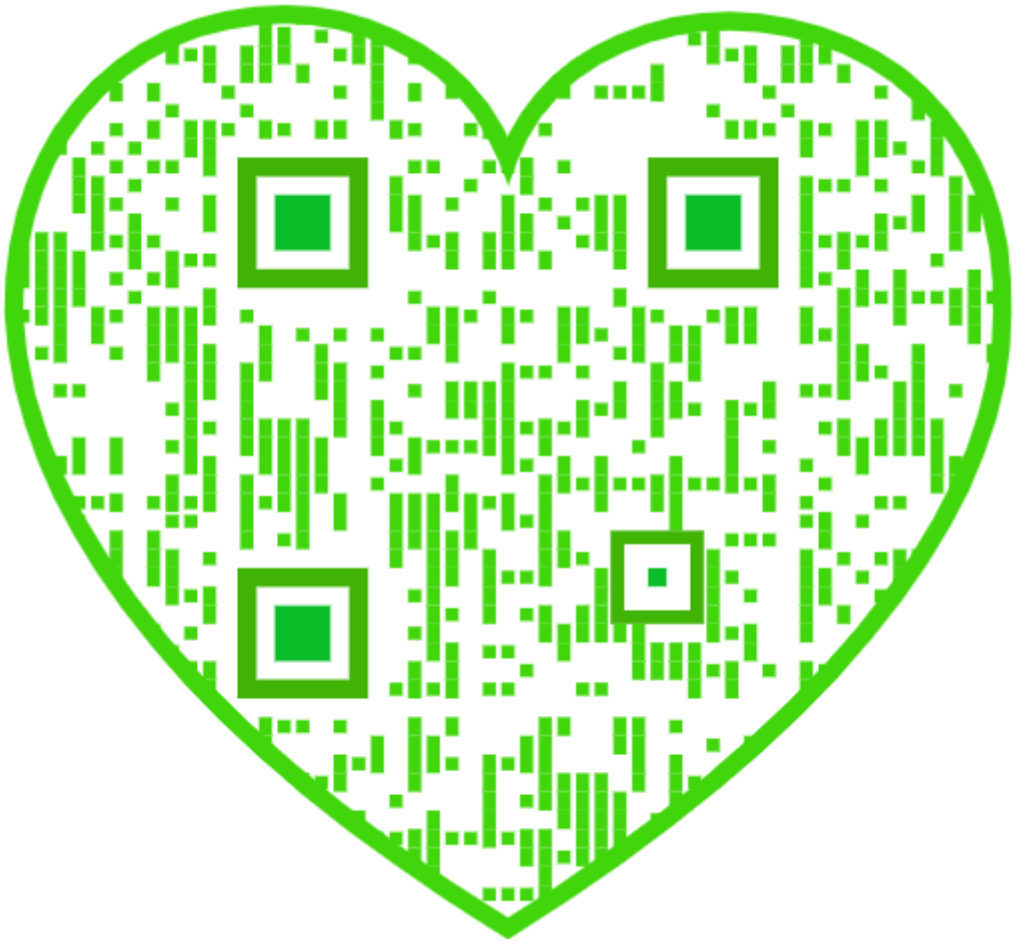

The ARCHITECT AND ENGINEER

OCTOBER
1928

The interesting design of the Beverly Vista Community Church is further enhanced by the Monolith Waterproof Cement with which it is plastered. It is located at Gregory Way and Elm Drive, Beverly Hills. Quinton & Kerr, Arch's. Glen Fratt, Plaster'g Contractor

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The ARCHITECT AND ENGINEER

Since 1905

VOLUME 95 OCTOBER, 1928 NUMBER 1

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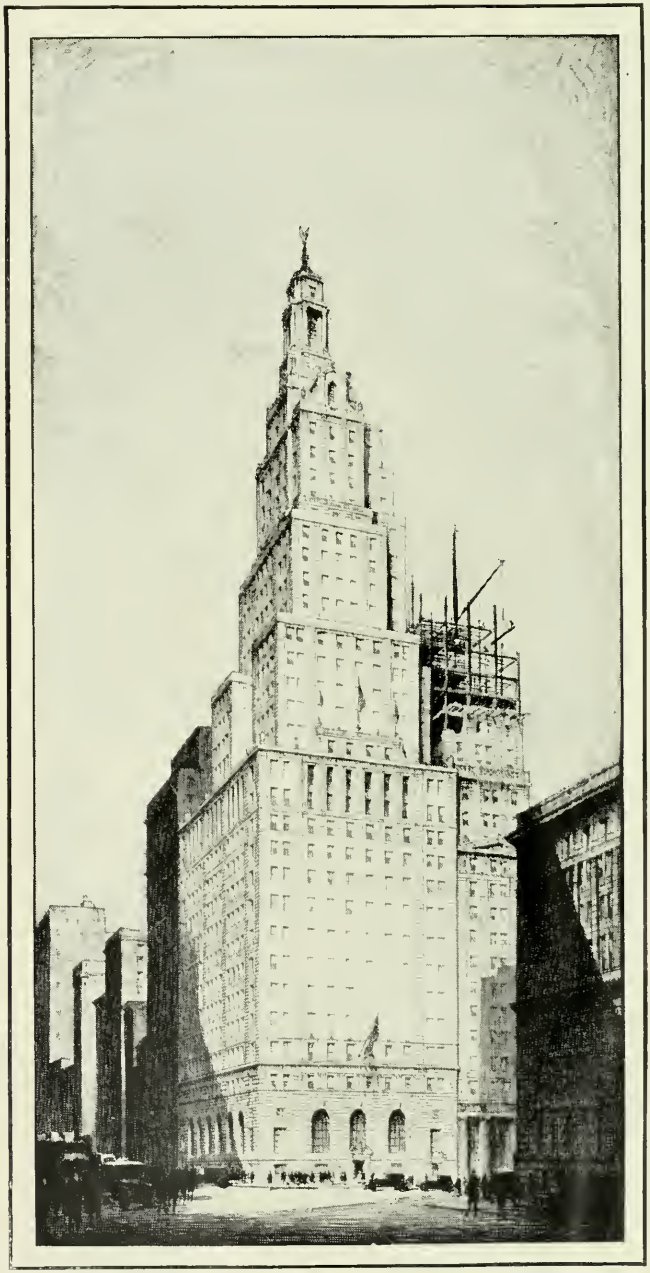

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ETCHINGS OF THE FRANCISCAN MISSIONS OF CALIFORNIA

By Henry Chapman Ford

No. 9—Mission La Purisima Concepcion

This Mission, now practically extinct, belonged to the Santa Barbara Channel group, in which Padre Serra was particularly interested. Actual work upon the buildings was begun in March, 1788, when a group of soldiers from the Presidio, Santa Barbara, began the construction of the Mission houses. The first ministers of the Mission arrived in April of the same year. The first buildings erected were crude and small and were replaced in 1802 with substantial adobe structures, roofed with tile. A severe earthquake, however, destroyed the Mission in 1812 and later the ruins were practically swept away by flood. The ruins indicate that the main Mission house covered an area 300 feet long by 50 feet wide with a colonnade 10 feet wide, running along the front.

MISSION LA PURISIMA CONCEPCION, CALIFORNIA
FROM AN ETCHING BY HENRY CHAPMAN FORD

The ARCHITECT AND ENGINEER

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VOL. 95 OCTOBER, 1928 No. 1

SOME of JOHN BYERS' HOUSES

By Jean Irvine

THE writer, driving about with Mr. Byers to look at some of his Southern California houses then building or of recent design, recalls the architect's remark that his buildings somehow tended to look better in profile than full face and better yet, so to speak, in the nape of the neck. Reminding us of Katisha's elbow in The Mikado—however, one had for himself observed that the farther from the highway, the more remotely set on the brink of a canon or in some shadow of eucalyptus grove, the happier the composition seemed to be.

Herewith shown are certain manorial farm buildings done for Mr. Harold Tuttle. And in the architect's anticipation of a future more largely given to the planning of such ranch homes perhaps might be seen a self-realization predetermined by the talent itself. If the appreciative amateur of these designs perceives in them boldness with suavity, serenity, something genuine and gracious, why not express the sum of these qualities in the adjective *urbane?* But that precisely, with implications of faubourgs and frock coats, is not the right word. Rather one feels in this work some textile of stout homespun. Observe the charming small office now occupied by the Byers forces in Santa Monica. Where too often a suburban street may suggest the opening pageant of a mask ball, here is something picturesque without motley, interesting without nerve-wrack. Nothing of the tippled "elegance" of late Hollywood, but with a naivete based on common sense.

WIND MILL, RANCH HOUSE FOR H. W. TUTTLE
John Byers, Architect

There is a quaintness that befalls the designer blessedly, and quite another whimsey achieved by an engineering determination, like Peter the Great's railroad, from here to there.

More sophisticated perhaps is the Dean Gregg house, giving on a fashionable boulevard across a semi-formal stretch of lawn, of these hereabouts might well deserve the Anti-English attention of Mayor Wm. Thompson of Chicago, to whom we commend the accompanying views of the Goodrich place herewith shown uncensored. In this style also a very considerable difficulty must confront the architect when it comes to blending the completed study into its

HOUSE FOR BRYANT WASHBURN, BEVERLY HILLS, CALIFORNIA
John Byers, Architect

but not repellantly palatial. It does not high-hat one. There is a friendly dignity about the most elaborate of the Byers houses, one feels. The white wooden Colonial is apt to appear frigid, bleak in the intense sunshine of these environs, the perpendiculars too long or the background out of character. But the J. M. Schneider house, among the present illustrations, might be in the suburbs of Charleston. And this instance of Colonial does not suggest the North Wing of a charitable institution.

While the greater part of this architect's successful work has been in the manner one knows as Spanish or Mediterranean, he has done also a number of satisfactory houses of English type. The unmistakable vogue content. In some Los Angeles neighborhoods a sort of Georgian seems an interstate vernacular that is accepted automatically, whereas the more extreme cottage type is just pidgin-English.

These Byers houses picture so effectively that a nervous tenant is likely to become camera-shy, discovering photographers in odd places and at unseemly hours, being reminded thereby of Copperfield's aunt and the periodic alarm, "Janet, Donkeys!" Perhaps earlier in his professional career Mr. Byers had too pronounced an aptitude for the picturesque, tended to over-finesse. Well, it is just in this regard that the sympathetic student perceives the most positive development of his manner. These later in-

stances show an increased subordination of parts to the whole, a further simplification, an enhanced restraint, the ultimate effect secured more by mass and less by the emphasis of chimney and grille. Perhaps with largely multiplied production some loss of spontaneity, here and there a phrase one could call perfunctory. See the Bryant recent work, take the Barclay house on the Riviera above Santa Monica Bay, one's choice from the present portfolio: finely appropriate to its time and place, balanced and spacious, neither stale nor restless, without dogma; but deriving from and perpetuating a sound and lovely tradition—*replete with sensitive rejections.*

HOUSE FOR BRYANT WASHBURN, BEVERLY HILLS, CALIFORNIA
John Byers, Architect

Washburn house at Beverly Hills. But in the main his growth has been an adventure in happiness, succeeding now more by a calculable rhythm and less by carefree syncopation.

More satisfying than any of the pictures in the current publication was a design shown the writer for a small ranch house yet to be constructed for Mrs. John Byers. Naive, earthy, instinctive, with the forthright appeal of a squat chimney against an evening sky—stout, unified, fresh and ancient—like a wren's nest. And, summing up all the trend of this architect's more

Because of limited space only a small portion of Mr. Byer's work is illustrated in this number. However, some of his earlier houses have been shown in previous issues so that readers have now enjoyed a rather varied presentation of the Southern California architect's fine achievements. Additional pictures and plans will be found in the plate section.

OUTLINE SPECIFICATIONS

DEAN B. GREGG HOUSE

Basement: Two heater cellars, for furnace, hot water heater, and storage.

Exterior: Two coats cement and sand over YPS Stuccomesh followed by a third coat oyster white stucco.

Floors: Living Room and Dining Room floors,

EDITOR'S NOTE—The Del Valle house which is among Mr. Byer's collection of homes illustrated in this issue, is a replica of the old Camulos ranch house at Saugus which the Del Valles owned and inhabited for forty years. This was the original home of Ramona.

HOUSE FOR DEAN B. GREGG, LOS ANGELES, CALIFORNIA
John Byers, Architect

FIRST AND SECOND FLOOR PLANS, HOUSE FOR DEAN B. GREGG
John Byers, Architect

13/16"x8" oak planks with 3/16" black walnut inlay at joints and screwed to joists with countersunk screws plugged with 3/4" black walnut plugs. Bedrooms, 13/16"x6 and 8" oak planks laid random with hand grooved edges. Bathroom floors tile.

Plaster: Putty coat in Kitchen and Baths, followed by Sanitas and four coats enamel. Living Room, Dining Room, and Bedrooms, plastered walls hand troweled texture plaster, left in the natural color.

Roof: Hand made Mexican tile laid without nailing strips, in random courses bedded down with cement mortar, over two layers 15-lb. felt mopped solid between and over surface.

Interior Finish: Woodwork all pine. In Living Room and Dining Room, and all exposed timbered ceilings, woodwork to be stained three coats to simulate driftwood. Woodwork in baths, kitchen, breakfast room, etc., painted five coats enamel.

Heating: Payne hot air furnaces.

Fireplaces: Common brick, plastered, and lined with fireclay slabs.

Sash: Wood sash throughout.

Interior Stairway: Treads 1 3/4" oak planks with embossed tile risers and wrought iron rail.

Over-All Dimensions: 64x80'.

Cost: Approximately $20,000.

BALCONY, HOUSE FOR DEAN B. GREGG, LOS ANGELES

LOGGIA, HOUSE FOR DEAN B. GREGG, LOS ANGELES, CALIFORNIA
John Byers, Architect

Florence Wright, Photo

OUTDOOR FIREPLACE, HOUSE FOR DEAN B. GREGG, LOS ANGELES

JOHN BYERS, ARCHITECT

FIREPLACE, DEL VALLE RANCH HOUSE

BEDROOM, DEL VALLE RANCH HOUSE

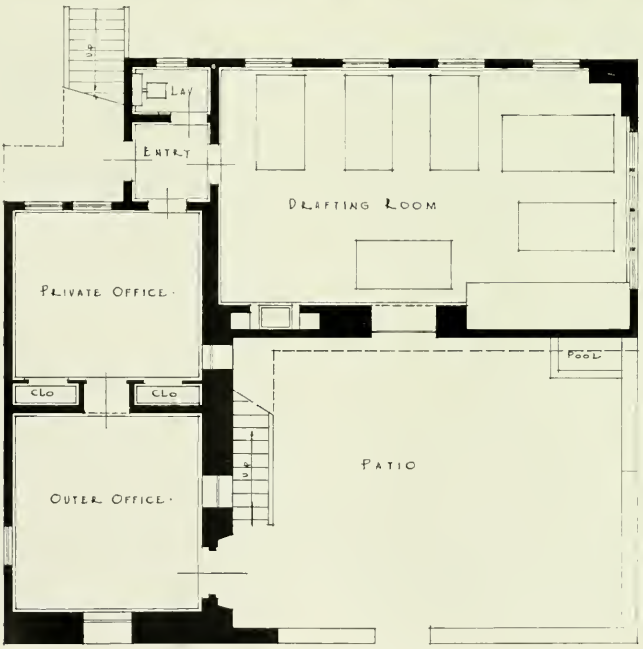
DINING ROOM, DEL VALLE RANCH HOUSE

LIVING ROOM, DEL VALLE RANCH HOUSE

Paul T. Silvius, Photo

Florence Wright, Photo

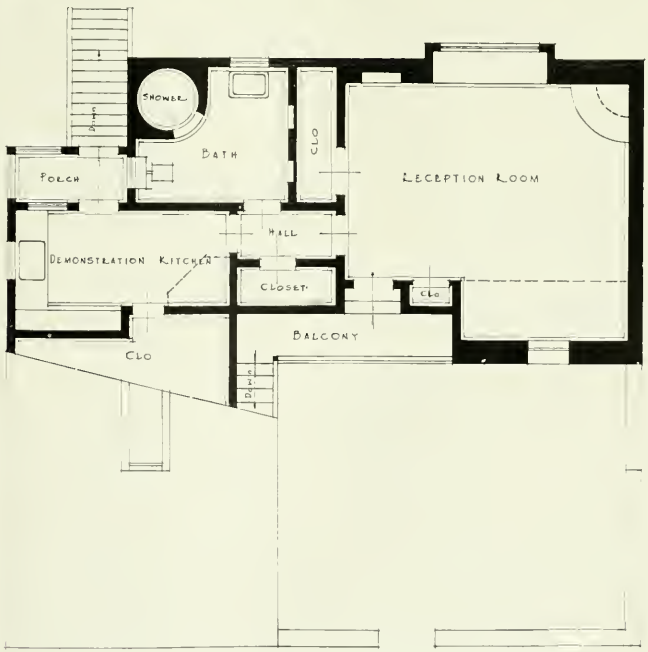
THE FOUR DETAILS SHOWN HERE ARE PHOTOGRAPHS OF JOHN BYERS' OFFICE IN SANTA MONICA



DRAFTING ROOM AND OFFICE OF JOHN BYERS, SANTA MONICA

Florence Wright, Photo

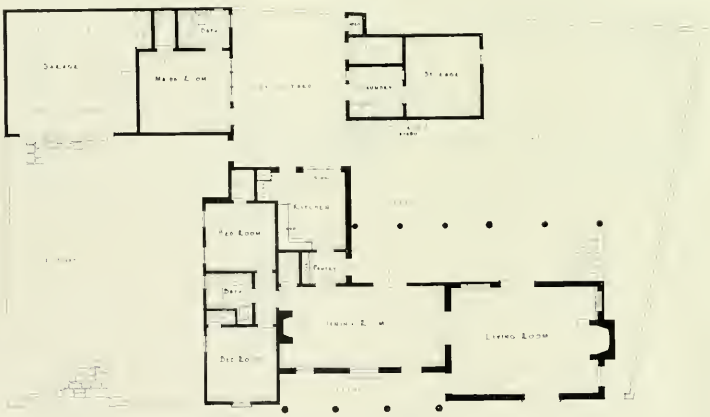
Florence Wright, Photo



SECOND FLOOR PLAN, STUDIO OF JOHN BYERS, ARCHITECT

Edla Muir, Photo

RESIDENCE FOR W. P. HERBERT, SANTA MONICA, CALIFORNIA
John Byers, Architect



PLAN, RESIDENCE FOR W. P. HERBERT, SANTA MONICA
John Byers, Architect

VALUE of ARCHITECTURAL SERVICE
?
NOTHING !

By Charles Kyson, A.I.A.

FOR the services of the architect — nothing! That is the appraiser's valuation of such services representing the practical opinion of many building and loan corporations. They, of course, concede the value of the obviously material elements that enter into the building—nearly always they recognize the justness of the contractor's 10 per cent for overhead and profit; but rarely, if ever, will they allow anything in their appraisals to care for the cost of architectural service. And why should they? These appraisers rarely meet or have little, if anything, to do with the architect — he doesn't enter into their economic scheme of things at all! To the appraisers, the contractor or builder is the only important and essential man necessary to the construction of a building. Like the great majority of the building public they regard the architect in the light of a pure luxury.

As consulting architect for a large building and loan corporation, every month many plans pass through my hands for analysis. So few of them possess any artistic merit that I determined to make a check and I found that only 3.0 per cent of them were prepared by certified architects. Now just stop and think what that means! What an economic loss to the community and what a financial deprivation to the architects as well.

In fancy I can hear the quick-witted reply of the critic of this article who might easily say: "Oh, that doesn't mean much— the loans made by these companies are usually on a lot of small houses — stuff with which an architect couldn't afford to bother." While we freely admit making a great many small home loans, yet we do not agree that the architect should have nothing to do with them. If the architect is the logical person to impart architectural beauty to a city, it rather looks as though it's up to him to do some imparting, if he is to maintain his position in an age where progress has taken unto itself wings — an age demanding that he who achieves must also serve. Who other than the architect has the training and capacity to impart beauty to our cities? The ability to do carries the responsibility of accomplishment, a fact of which the profession of architecture cannot afford to lose sight for one moment.

Many builders and owners start in the speculative field of building investment by constructing the small house. This almost inevitably leads to larger and more important work, such as the construction of flats and apartments, store buildings, etc. From these humble beginnings they progress onward into larger fields of building endeavor. In their small house days, these individuals have been able to build without the services of architects, and this idea follows them on into their more important building activities. Under this common but incorrect system the homeowner, the public and the architect, all inevitably are the losers.

We readily concede the planning of the small house can never be a financially attractive field for the architect. At the same time we must face the fact that in numerical volume, the great majority of the structures built in our communities come within the province of the small house,

double dwelling, flat or apartment and the beauty of our cities is judged largely thereby. If the various architectural organizations throughout the country really have a sincere desire to serve their community—to practically assist in the beautification of their cities, why not consider the establishment of bureaus or agencies in various large cities where the small home owner could procure the plans for his home at a nominal price which would insure his getting a well arranged and artistic house. Of course, in this case these plans would be prepared under the supervision of recognized groups of competent architects, and in consequence a combination of beauty and utility should inevitably result. These efforts would most certainly be appreciated by that powerful and influential mass of people who constitute the public, provided, if by advertising or other means of legitimate publicity, they were made to understand the purpose and importance of such an effort. This would help to give prestige to the architect and the dignity of need to his profession.

Sometimes it is well to remember it is the little unselfish, helpful things we do for the other fellow—things without a price tag thereon — which make life so richly worth the living. It isn't always the money we make that gives us the greatest satisfaction. The fruit of these same kindly, unselfish acts constitute that imperishable wealth — the currency of eternity — the pleasant milestones of life that give the zest to human experience. We should bear in mind the small house, so-called, is often a great project in the humble experience of its owner. To us, just another bungalow; to him, his supreme achievement — the shrine where burn the home-fires of love and sentiment. To him, a place where his children grow to maturity and form the basis of the memories of home to sustain and inspire them in their voyage of human experience through life's seas of calm and of tempest.

If the architectural profession will, in this endeavor, lay aside the thought of mere gain, and generously give of the talent they so richly possess, they will have performed a fine, unselfish act of inestimable good to the owner of the small home and to the community as well. Like many another generous, unselfish, and worthwhile act, there operates the divine law of compensation—"What blesses one, blesses all."

The American Institute of Architects has, we understand, started such a movement, but the various Chapters should actively take it up and carry it forward to success in their various localities.

Various architectural organizations have in some instances made some slight effort to assist the small home owner in securing an adequate and artistic house. These efforts, however, have been sporadic, and frequently and unhappily met serious opposition and heated criticism by some of the architectural practitioners whose visions were rather restricted. The burden of the saga of sorrow of these disgruntled ones was that it would tend to cheapen the value of an architect's services in the minds of the building public. If, for example, they contended the small home owner could purchase a set of plans for, let us say, $50.00, it would be a rather difficult feat to convince that same home owner of the advisability of ever paying the architect 10 per cent for the planning and supervision of a building.

This objection, however, is hardly logical. When a building operation runs into larger figures, whether it be for homes or for purposes of investment, it becames evident to a person of even average intelligence that special plans are necessary — plans and specifications which are adapted to a particular type of building, where standardized plans could not well be used. Then, if the architect has acquired even a rudimental knowledge of cost accounting and knows how to correctly figure his production cost, he can easily demonstrate to a reasonable client that architectural service is not only necessary but that it really costs money. The average person is usually willing to pay when he is convinced of getting his money's worth. If the building public could be made to realize that money spent in architectural service is the most vitally productive of any investment in their entire building operation, then the architect will continue to gain ground in-

stead of steadily losing it, as at the present time.

If, in the field of building finance, the architect only gets 3 per cent of the business, it would be rather interesting to know how much more he feels he can further afford to lose before entirely passing out of the picture.

Architecture is considered to be one of the arts, but beauty founded on utility is its essential keynote. The practice of architecture has become largely a business, and so the not-easy task faces the architect of placing art on a business basis. If architecture as a profession is destined to pass from under the control of the architect to that of the business man—and there are many who are beginning to think that it will—this must then inevitably mean these business executives would be inclined to unduly stress utility at the expense of the artistry of architecture. This period of experimentation would inevitably result in a set-back in the architectural beauty of our cities, from which it would take years to recover. Ultimately, of course, these business heads of the construction industry would come to realize the truism that good architecture pays, and they would then tend to turn more to the services of the architect. The position of the architect, however, would have been so weakened by his subordination to the position of a mere employee that it would be difficult for him to come back to even the waning prestige which he enjoys at the present time.

It may easily be that he cannot escape this fate, for the architect is the victim of tradition. He has made such a fetish of the past—he has so long and laboriously studied traditions—steeped himself in its lore that, to a great extent, he has lost the ability of the creative thinker and has become merely an agile, clever and synthetic copyist, an archaeologist rather than a creator. What a sad state of mind—living as we do in the most marvelously creative age the world has ever known—looking timidly backward, instead of gloriously forward and visioning the enthralling vistas of the future.

Let us see how the slavish worship of the past affects the thought and present position of the architectural profession. The architect's entire theory of selling his services corresponds to his retrospective habits of thought and is based upon the traditions of the past. He cannot apparently see that moderns of today do not buy things so much as they are sold things! This applies to ideas as well as commodities. We have all largely adopted the buyer's point of view. We like to be old King Prospect and comfortably sit back and listen to a clever salesman tell us how good we are—how intelligent—how discerning and other pleasant half truths, with which naturally we all agree most heartily. Architects market their professional services on a theory of salesmanship evolved amid the ruffles and flounces of the fussy bouffant eighties.

We architects believe with the maker of a certain hoary and bromidic mouse trap that if it were constructed along the lines of sufficient excellence, then a mouse trap-mad public would wear a worn, forget-me-not bordered path to the door of the virtuous and complacent manufacturer. Let us listen in fancy for a moment to the derisive hoots of ribald laughter such a policy would elicit from the modern mouse trap manufacturer and his advertising staff. Their methods would aggressively insure that the public would read about mouse traps in the papers, listen to their virtues over the radio, and hear their friends eagerly discussing mouse traps on every and all occasions. Those advertising chaps would make us eat mouse traps, dream mouse traps, think mouse traps, until subconsciously we came to the conclusion that our very salvation depended upon our having a different colored mouse trap to match the decoration of every room in the house!

And as for having only a worn path to the manufacturing plant! Old stuff! Those mouse trappers would have a four-way motor truck concrete paved highway to the front door—railroad switches to the sides and back and an aeroplane landing on the roof! They would provide rest rooms and furnish a perfumed bath to the fatigued mouse trap shopper. There would be clients'—customers'—rooms chromatically decorated in faultless taste to conform to

the color of our purchasing aura. If we "couldn't be bothered with that" and desired to make our purchase by mail, at the bottom of the advertisement we would probably read "You are urgently advised to clearly write your name and send it in without delay, as we are advised there is about to be a mouse trap famine of grave magnitude. Kindly state your complexion and color, as harmonious blending of one's personal mouse trap to the color of one's eyes gives a note of fine distinction to the personally discriminating."

Now that's what we moderns call service—foolish, ridiculous, perhaps! But a condition of modern merchandising nevertheless.

The builder, being a business man, recognizes the rules and necessities of advertising, is applying them to building construction, and thus he puts his abilities and wares before the public. And so, when the public desires to build, they have been educated to look up the builder and ignore the architect. The position of the architect rather reminds us of our camp cook who, when the sacred hour for dinner arrived, used to growl forth a surly invitation to "Come and get it or I'll throw it away!"

How delightful it would be if we could always write with a Polly-Annish point of view and say only the pleasant things about individuals and groups of them. We wonder if, however, all writers had pursued this policy it would not have seriously interfered with the constructive thought and progress of the world.

Truly it must be regarded as a thankless task to write of the faults or shortcomings of other people. It is a rocky road to popularity. The writer who takes it upon himself to do so is like unto the goat who finds himself an outcast, bleating alone in the wilderness. Personally, the love of architecture was bred in the bone with me; my father before me was an architect, and I have spent the better part of my life in its practice, and I would so love to see that profession take its place in the vanguard of progressive thought and accomplishment.

Many of the faults and mistakes I observe, and am foolish to write about, I have committed myself. Frequently I have with joyous eagerness lent my personal bray to swell the chorus. Freely admitting this, my keenest critic can hardly accuse me of taking any "holier than thou" attitude—and I believe I have tried hard to make my criticisms at least constructive in character.

To those of us who feel that a modernization of our code of ethics is desirable and that the very salvation of our profession depends upon it, there comes a ray of hope—there is unquestionably a decided stir of unrest among the great silent majority of the architectural profession. It is indeed fortunate for the architectural progress of the world that the ranks of the profession are being recruited by the hot blood of youth through whose veins surges the urge to progress. Youth is badly needed, and may its vital life stream be uncontaminated and not made tepid from too slavish an adherence to tradition. For the good of us all, we hope the magnificently stubborn and dominant minority have nearly run their course.

Let us give them the credit for their honesty and sincerity of their belief that architects should not advertise—indulge in publicity, or otherwise use any of the modern and accepted means of setting their case before the public. There is no question but, due to the apathy or inertia and the acceptance of this mistaken belief, the frozen art owes its present predicament. Truly the Israelites of the T square would do well to pray for the coming of an architectural Messiah, well versed in baffling psychology of the mule and qualified to lead us out of the wilderness.

TRINITY METHODIST EPISCOPAL CHURCH
BERKELEY, CALIFORNIA

By B M Woods, M.E.

WHEN the University of California purchased the old Trinity Church property on Allston Way, Berkeley, the trustees of that congregation were fortunate in securing a new site on Dana Street, 260 feet by 300 feet, extending from Bancroft Way to Durant Avenue, and comprising half a block of land. Immediately the church undertook the planning of a building program to provide for a larger congregation and to furnish special facilities for the increasing number of University students affiliated with the Methodist church. The church auditorium, recently completed, is the first unit of the group comprised in the program. It is to be followed soon by a unit for the Wesley Foundation and later by another for the church school and social hall.

As a member of the Building Committee, the writer advocated a structure to resist earthquake and fire hazards to the maximum degree, consistent with moderate cost. This principle was finally adopted and the problem of achieving the church auditorium in the Gothic style of architecture, with a steel frame and reinforced concrete, was referred to the architect, George Rushforth, A. I. A., and to the structural engineer, Henry Dewell, to solve. It is believed that this problem is somewhat out of the ordinary and that the solution, which is exhibited in illustrations accompanying this article, will be of interest.

CLOISTER, FIRST M. E. CHURCH, BERKELEY
George Rushforth, Architect

The auditorium has a seating floor area of approximately 8,000 square feet and a seating capacity of 1,100 persons. The cost, complete with pews, etc., but not including the organ, was $152,000. Hence, the cost per square foot of net usable area, was about $19.00; the cost per unit of seating capacity was $138.00, and the cost per cubic foot without furnishings was approximately twenty-two and one half cents. Considering that the steel frame is adequate and complete, that architectural detail has not been seriously sacrificed for economy, and that the cost quoted above includes good lighting fixtures, a thoroughly adequate heating system, acoustic plaster and other items essential to the completed structure, the officers of the church regard the unit cost as remarkably low.

Members of the congregation and visitors generally comment most favorably upon the excellent acoustics of the auditorium. These were achieved chiefly through the use of a favorable geometric form and of appropriate areas of

acoustic plaster with the proper absorption qualities. When it is known that the free air content of the main auditorium amounts to 334,000 cubic feet, it will be understood that the problem of reducing reverberation ranks with the problem of avoiding echoes. The writer has been in few auditoriums of this size in which the acoustics may be considered comparably good.

auditorium to believe that the architect has succeeded in translating into the building itself the spirit of its major purpose.

Fees For the French Architect

THE French Society of Architects, corresponding to the American Institute of Architects, in co-operation with the Union of Societies of Architects, an organization of local societies, recently obtained an official recognition of the right of architects to demand pay for their work, and a statement of the fees proper to be paid, from the Ministry of Public Instruction and Beaux-Arts. The fees are fixed as follows:

For the first 100,000 francs ($4000).....7%
For the second 100,000 francs.....6%
For the following 300,000 francs..... 5.50%

LOOKING TOWARD ENTRANCE, FIRST M. E. CHURCH, BERKELEY
George Rushforth, Architect

The exterior of the building is marked to imitate stone and is decidedly successful in its effect. A faint tinting of the concrete produces a soft tone much more pleasing that the bluish white so often seen. The interior profits through the light tones resulting from the use of English cathedral glass and through the cream and tan tints used by the architect. The building is notably successful in a churchly atmosphere. One needs only to attend a service in this

For everything over 500,000 francs.....5%

For ordinary work the total fee is divided into the following percentages for each part of the services:

Preparations of plans and drawings, 35%.

For detail drawings, specifications, award of contract and supervision, 35%.

For bills of quantities, measuring up the work and verifying all the bills of the contractors, 30%.

LOOKING TOWARD PULPIT, FIRST M. E. CHURCH, BERKELEY
George Rushforth, Architect

All repair work which does not call for the preparation of drawings and plans but which requires looking after details and a supervision that is greater than necessary for ordinary work, must be paid for according to the fee fixed for the carrying out of a job entire.

Architects are considered to be entitled to receive an addition to the usual fee when the work is done at some distance from their offices. This provision, no doubt, was inserted by the associations of architects at some distances from large cities in order that owners may be induced to employ local architects.

One per cent may be added to the fee for all work that is done at a distance of seven miles from the office; 2 per cent additional may be charged for work that is done at a distance of more than 65 miles away from the office; and 3 per cent extra may be charged for all work that is done more than 325 miles from the office.

In addition to the extra fee the architect will be entitled to receive all legitimate traveling expenses.

Whenever a proprietor has work done for a tenant, the architect who may be asked to look after the work is entitled to charge a fee of 2 per cent upon the actual cost of the work.

(See pages 91 and 92)

FIRST METHODIST CHURCH, BERKELEY
George Rushforth, Architect

Structural Steel Fabricated and Erected by Pacific Coast Engineering Company

FRAME OF FIRST METHODIST CHURCH, BERKELEY
Henry Dewell, Structural Engineer

THE PROFESSIONAL PRACTICE OF LANDSCAPE ARCHITECTURE

By Howard Gilkey ~Landscape Architect~

LANDSCAPE architecture as a separate profession is rapidly making itself felt in California. A dozen years ago conditions were far different. Landscape architects were known as "white collar, blue-print gardeners" and viewed with much alarm by the oldtime gardeners, who found time between spadefuls of dirt to contrive in their minds the layouts of the gardens upon which they were laboring. Naturally the achievement of a landscape that could be rated as an object of art was extremely problematical. Landscape gardening meant usually a good front lawn and a miscellaneous collection of shrubs rather spottily arranged wherein the chief object was to show off the merits of the plants as such, according to the notion of the gardener as to what constituted beauty in an individual plant.

"Nursery planting" was the next stage and is still in some slight vogue. The fallacy of this practice is that a garden should be a thing of design, a place in which to live, and not a mere repository for plants. By this procedure shrubs are placed too close together for immediate commercial advantage. Being primarily interested in selling goods, the temptation is too great not to "work off" much easily propagated material of worthless value. This "over planting" has always proved a boomerang and the almost hopeless homeowner has turned in desperation to find a professional adviser who would honestly help him to solve his problems on their sheer merits. And besides, he needed someone with sufficient knowledge of the arts as well as landscape construction to design for him a garden as an "outdoor realm" of his home.

The landscape architect, a purely professional adviser without any connection with a nursery, a man with a sound technical training in Landscape Design, Architecture, Engineering and Construction, as well as Horticulture, is now available for advice in the planning and direction of the work of improving grounds in an orderly, permanently economical and beautiful manner. His professional attitude toward his work is similar to that of the older profession of the architect. He is not a contractor, and any person who contracts for the execution of landscape work is not ethically entitled to style himself a "Landscape Architect."

Naturalistic design is fully as much within the province of this profession as the more formal and pretentious works, and the use of the word architect should be construed in its oldest meaning, that of "master artisan." And a master artisan he must be, for his skill must compass the correct use of masonry, concrete, terra cotta, plaster, carved and cast stone, carpentry, ornamental iron, exterior electrical effects and hydraulics, as well as the customary practice of grading and ornamental horticulture. His knowledge of plant life must be highly specialized and the intricacies involved in a region where the flora of the whole globe almost finds itself poured into his lap for use, require rare judgment in order to avoid the chaos that results at the hand of the tyro.

Problems of great diversity crowd together in the day's work of a landscape architect. The first hour of the morning may find him directing a skilled assistant in the shaping of a bit of ledge rock garden and the formation of a natural creek to

tumble down a precipitous ravine which yesterday was only an uninviting bit of raw land; at the next stop he meets a client and with him or her, must decide upon the color of the dash with which to coat a bit of Italian balustrade, or to chose the color and grade of gravel that will match it when used on the adjacent terrace path; later on in the day's program a lawn grade must be approved and the tentative placing of high school or college grounds in distant parts, an office assistant wants to know about the hardiness of half a dozen shrubs for these localities, and two or three books of reference are digested in order to find out the probable soil and climatic requirements of a rare and untried new shrub from western China of a very superior beauty, and to see if it can be used or not; the telephone meanwhile has interrupted spasmodically,

THE ARCHITECTURAL MOTIFS WITH OLD WILLOWS IN THE BACKGROUND AFFORD AN ALMOST IMMEDIATE COMPLETENESS OF EFFECT

shrubs as laid out from the blue-print by the contractor must be checked over and adroitly retouched in places; at the office, samples from the tile company must be approved before their selection for a wall fountain; inquiry from a former client must be answered by letter advising as to what flowers to plant to follow the tulips, and just when to dig the tulips and how to cure the bulbs; the draughtsman next wants to know if the full size detail profile of a capital and entablature for another client are satisfactory and the heavy blue pencil is much in demand. In regard to a new culminating in a request from some "Flower Lovers' Guild" for the landscape architect to talk to their club Wednesday on one of two subjects, "Hardy Orchids of California" or "The Moorish Influence in Garden Design."

"Art is long, life is brief," and landscape architecture is at last being recognized as one of the arts of design and the technically trained practitioner of the art is accepted as an artist. The landscape architect must be well grounded in his practice on the basic engineering and horticultural phases of his work. The present day flowering of

architecture and style consciousness of the building art has proved a boon to him, as the modern demand for good design and correctness of all forms of decoration has proved to be beyond the knowledge of the oldtime gardener and nurseryman.

No place on earth is superior to California for the art of landscape design. During the next decade we may hope to see landscapes designed here that will rival the famed villas of Southern Europe, and perhaps superior in the choiceness of planting effects. During the last generation the amount of choice plant material available for landscape use has been doubled through the heroic efforts of our plant explorers. The intriguing situation is this, that we have here in California assembled the finest and most beautiful representatives of the flora of every region in the globe except those that are absolutely tropical. These regions include most of Australia, New Zealand, lower South America, South Africa, North Africa, all of Europe, most of Asia, Japan and North America, including a native flora which is the richest in the world in conifers and wild flowers. What a palette for the artist—what a challenge to the soul of the true artist toward inspiring him to do something — everything in his power — to show his gratitude for the wealth that is his!

HOTEL ARCHITECTURE

STRUCTURES erected during the past few years indicate that, after all, architecture in America is achieving a simplicity and severity of design and construction that express the vaster conceptions of life on this continent. Foremost in the representative architectural styles contributing to what may be called "American Architecture" are the several striking hotels which have been recently built throughout the country. There has been a definite tendency to construct monumental buildings that rise like obelisks above the earth—symbols of aspiration? of convenience? of concentrated centers? It is not too much to say that some of these structures represent the first classic achievements in architecture in this country. From the striking monolithic towers of New York, and now San Francisco, to the intricately designed buildings, such as the Santa Barbara and Southern California hotels, there is the significant indication that hotel architects are adapting their plans to the topographical and traditional requirements of the locality in which the hotel is to be built. The old rigid common styles that prevailed south and north and east and west, notwithstanding, are passing.

* * *

Special credit is due to hotel builders for this reason. The hotel, which is in manywise a community home, has been adapted to the scene, the city, the hillside, or the seashore. It has given meaning to structural pattern, to exterior design. It has partaken of the prevailing spirit or genius of a site. In New York, it has reached for the skies. It is doing the same in San Francisco, in Detroit, in Pittsburg. In Chicago, it is spreading over blocks to accommodate the vast trade and commerce of that diffuse city. In Southern California, it is representing with somewhat bizarre effects the spirit of a new hybrid Latin land—a new Spain? a new Italy? But, at least, a typical hotel of Hollywood or Pasadena is definitely distinguished from one of, say Boston or Brooklyn. The hotel is displaying architectural character. —*Keeler's Hotel Weekly.*

FIRST NATIONAL BANK BUILDING
Azusa, California

By Robert H. Orr: Architect

THE new home of the First National Bank of Azusa is designed in the Moorish-Spanish style of architecture, this motive being carried out in both the exterior and interior. The result is pleasing and harmonious, creating a feeling of stability which is generally sought in the designing of financial institutions. While striving for an artistic effect, the designer nevertheless did not lose sight of the fact that the principal function of a bank is to protect the valuables entrusted to its keeping. The exterior is art plaster for the upper portion, combed plaster for the base and trimmings of artificial stone. Worked into the frieze are successive panels, depicting allegorically the history of early California — the ship of Columbus, Indian head, Mission bell, etc. There are in all thirty such panels in the frieze. Adding also to the richness of the outer walls is a base of polished black Belgian marble, with a sand-blast design. The windows, generously proportioned in keeping with the design, have steel sash and ornamental iron grilles. The entrance to the bank is through an arched door-way extending through two stories. For embellishment the designer has selected the American eagle. Within the art stone entry, on the interior side, is a carved and paneled entrance of Southern red gum in Walnut finish within which are set two sets of doors; one pair of solid bronze night doors and one pair of bronze day doors, with plate glass panels.

Unusually spacious is the banking room itself. It provides for the needs of a city much larger than the present population of Azusa, the bank officials having in mind when it was designed, the future growth of the community. The building is 75 by 80 feet. The entire first floor is used for banking purposes and there are offices on the second floor. The interior is finished in plaster and trimmed with Caen stone and Vermont and black Belgian marble. The floors are of terrazzo in varied colors, the design being obtained by the use of brass strips with borders of marble. The decorated ceiling is supported with columns, the capitals being ornamented in bas-relief. A beam effect is given to the ceiling, the beams being elaborately decorated with similar designs to those carried out on the exterior frieze, depicting early California history. Partitions and cages are of Vermont marble with Belgian black marble base and all woodwork furnishings are in Southern red gum, walnut finish. The bronze lighting fixtures are Moorish design, carrying out the lantern effect. At one side of the vault is the directors' room paneled in Southern red gum with a decorated ceiling and tapestry hangings. The safety deposit vaults have six-ton doors hung on impregnable hinges and the entrance to the vault is screened by an ornamental and protecting wrought iron grille. A modern safety alarm system has been installed. These devices are sensitive to vibration, so sensitive, in fact, that they will instantly register any unusual change in heat or any slight force that might be used in an effort to enter the vaults. The cutting of any alarm system would register an alarm. The alarm registers on gongs inside and outside the bank and also at a remote control at an unstated location. The contact buttons, or alarm sets, are established at convenient stations in the banking room so that any employee is at no time any great distance from points whence the danger signal could be flashed. The building is heated with the latest type system of Payne unit gas steam radiation.

CHICAGO WORLD'S FAIR CENTENNIAL CELEBRATION-1933

By Dr. Allen D. Albert

CHICAGO, as an organized municipality, will be one hundred years old in 1933. In the comparatively little period of ninety-five years it has grown from a population of twenty-eight to a population within its metropolitan area of 5,100,000.

Surely such a birthday should be observed with formal and impressive ceremony, hence the proposed World's Fair. The trustees of the exposition are agreed that the celebration should include the following:

A year of congresses or parliaments on the more important and more controversial of modern subjects.

A year of great music.

A year of international sports, particularly for juniors, for high school students, and for university students around the world, without minimizing international contests among professionals.

The employment of eminent designers from the nations to develop on new islands in Lake Michigan a setting of great beauty and by the development of gardens and lagoons to make of the site a place of appealing relaxation.

Assuming that each of these phases justifies attention for such a birthday, the trustees of the Centennial Celebration believe, however, that they accord with the quiet thinking of the great body of the people of Chicago when they move to put the superior emphasis elsewhere.

The one hundred years which encompass the whole life of Chicago are in many respects the most momentous of all human history. They include all the development of industrial productivity due to the introduction of steam and electric power; all the benefactions of improved methods of communication and transportation—from the telegraph to television, and from the first steam locomotive to the aeroplane; all that is comprehended in the camera and moving picture; all that men have undertaken of free and popular education; the greatest war of history and the establishment of the first international organization for the reduction of war; and nearly all of the progress of science.

There is one consideration which the trustees of such a centennial must consider, it seems to me, soberly: Through every human expression is traceable the influence of science—in new methods of saving life through medicine and new methods of destroying it through war; in new luxuries for all the people and new power for criminals; in new richness of daily experience and new distractions of the spirit. Tomorrow, we are wont to say, is a race between education and catastrophe. Science is a generation ahead of life. We can worthily devote our Centennial Anniversary to an interpretation of the contribution which science has made to humanity.

The growth of science has been so swift, the changes in our living conditions have been so frequent and progressive, that no comprehensive attempt has yet been made to spread out the story of this growth, in its major divisions, so that all the people may learn it. We in the United States have not been so alert as the people of certain other nations in relating science to industry, in developing departments of research for our great corporations. In time of war we have moved resolutely, resourcefully, to make a partnership with science, even compelling such co-operation by the law of the Federal Government. Who can say that a similar partnership in time of peace would not be an advantage to the people of America, to the people of the world?

For a centennial celebration this would lead logically to a new kind of universal and international exposition. The building at its center might then become a hall of science, with a wing for each of the major divisions of science in which the story of its development would be told in charts, pictures, working models, the whole so explained as to be within the comprehension of any intelligent visitor, and leading on to the inquiries and studies which are in progress toward the further advance of that science.

Geology, abstractly, would picture the ages, the movements of ice, the successive forms of life upon the planet. All this is fairly familiar. But add to it the uses of geology—the mining for rock salt and the new artesian mining for crystal salt; the mining for precious stones, coal, minerals and their influence on humanity; the boring for petroleum!

Here is an exhibit which must stir the imagination of any human and it could be so organized as to be practically indispensable to the subordinates of any large corporation engaged in the production of materials out of the earth.

Each of the other branches of science would prove interesting in the same fashion. The difficulty will be not to find material, but to keep the exhibits simple. No university has ever undertaken such a graphic review of the sciences, such an interpretation of their contributions to our life. We must be on guard against having the unfolding of it abash the visitor by an appalling array.

When we come to apply the same reasoning to the general exhibits of a world's fair we are directed to a striking reorganization of most of the materials. It does not seem logical to group the industries according to the sciences for the reason that almost any industry owes its late development to more than one of the sciences. The automobile, for example, depends not only upon the internal combustion engine, but upon the development of electricity, research in the lubricating elements of oil and the development of substitutes for leather. A better arrangement of the industries would probably be to treat them according to their functions, as transportation, building, the improvement of health, education, communication, and so on.

In each of such departments it is proposed to exhibit the unfolding of the service performed and to have the exhibit a composite, the product of the industry rather than of individual firms within the industry. Nearly every division of our modern economic and social organization is represented these days by an association or guild. The trustees incline to turn to the associations or guilds of the more important departments and ask each one to represent all its members jointly and in partnership.

Consider how this would work out. The exhibit which the Association of Cement Manufacturers might evolve is probably a fair example.

It would begin with drawings or working models showing the oldest known uses of cement, as in the making of ancient city walls and the construction of cisterns. Samples of the oldest cement work might be obtainable. There is, however, little to illustrate beyond the earliest hydraulic limes until the sudden enlargements of engineering in the early part of the nineteenth century. Following upon working models of kilns and shafts and grinders, would come the uses of cement by the engineer of our time in foundations, in walls, in floors, in bridges, in the constructions of war. One of the most impressive of all the teachings at the San Francisco Exposition was a demonstration of the part which cement played in the building of the Panama Canal.

In turn would come relief maps and models showing the contemporaneous development of the cement industry in the building of highways and an indication of the social consequences of such highways, with models showing the difference between the loads hauled on a poor dirt road, on macadam, and on a road of concrete.

All of this might be expected to have a popular interest. For those who have made investments in the cement industry and those who are at work in it, however, such a display would provide an almost compelling opportunity for education. Photographs could be made of it, and when the

exposition released it, the larger cement companies might maintain it as a unity and display it in other cities.

We have been amused to note that for each branch of industry the leading men have believed it would work for their craft but hardly for any other. Thus we have been warned that a collective exhibit would be admirable for oil companies, for insurance companies, for printers, for engineers, for advertising agencies, for railroads, for cotton spinners, and for banks; and in each case it was felt that the collective idea could not possibly work for any of the others.

Such a system would not preclude by any means the offering of wares for sale by individual firms or the maintenance of headquarters. On the contrary in such fields as textiles and clothing, jewelry, especially that which is semi-precious, china and porcelain, it is highly desirable that worthy examples like those in the collective exhibits should be available to the visitor to take home in the form of purchases made near at hand. In many cases the collective exhibit would constitute the central section of a hall, accordingly, and booths would be provided along the sides and across the ends of the hall.

With all of this there is need, if the 100-year period is to be fairly reflective, for collective exhibits of human progress in distinctive fields—in the methods and expansion of education, in the widening of the field of woman's activities, in the deliberate planning of modern cities, in the conservation of natural resources, in the advance of the negro race in the United States, in the recognition of play as a social factor of great importance, and in other departments of our modern life.

In an altogether different field the inclinations of the board promise to produce a second departure no less distinctive. Our feeling in Chicago is that we have a great deal to learn from the cultures of other peoples. The World's Columbian Exposition of 1893 stimulated all America to an appreciation of classic design. The purity of its architecture affected the general taste of America. We would learn now, by similar processes, from the older peoples of the earth.

Wherefore the trustees incline to turn to the other capitals of government and industry—first, for help in the development of the scientific theme of the exposition; second, in the display of their cultures; third, in the organization of celebrations within the grounds for the entertainment of distinguished visiting spokesmen and the observance of important national anniversaries; and, fourth, for the display of products of their handicraft, art and industry for sale.

Each country appears in turn to be especially significant.

The people of America would be impressed by the contributions which Holland is making to the sciences. Our gardeners would be eager to learn from the Dutch. Delft tiles and other forms of porcelain exhibited here would surely quicken the American market for them.

From Spain we would desire an exhibit of the paintings of Velasquez and Goya. This is the nation with which the World's Columbian Exposition in 1893 was so intimately related, and now through its handicrafts and its culture, as well as its history, we would like to enlarge that relationship.

From Japan we would particularly desire exhibits of her fine arts in which by a thousand years she has anticipated the best of our modern Occidental art movements, and we would like such booths for the sale of her prints, porcelains, lacquers, brocades and bronzes as would enable our people to procure examples of Japanese art authentic in character and moderate in price.

The Austrian Tyrol has diverting and colorful little carvings. From Czecho-Slovakia, from Roumania and Serbia, there come embroideries of rare loveliness. Has America learned all that Scandinavia has to teach in the fields of music, the drama, architecture and sculpture? From Germany, France, Italy, the British Isles, the Holy Lands, from every ancient civilization there are valuable teachings winnowed by the centuries.

FIRST ANNUAL CONVENTION STATE ASSOCIATION of CALIFORNIA ARCHITECTS

THE first annual convention of the State Association of California Architects was held at the Clift Hotel in San Francisco, October 5th and 6th. There was a fine turn out of architects from every section of the state and the convention was voted a huge success.

The first session was called to order by Mr. Edelman of Los Angeles and Chairman of the Executive Board, at 11 a. m., October 5th. About seventy were present. Mr. Edelman delivered the address of welcome.

The Chairman announced that a Resolution Committee would meet at lunch time and invited anyone wishing to offer a resolution to submit it to this committee. The committee appointed was Messrs. John Austin, Chairman, Los Angeles; Mark Jorgensen, San Francisco; Chas. F. B. Roeth, Alameda County; Leonard F. Starks, Sacramento; Harry C. Collins, Palo Alto, and J. Siebert, San Diego.

The Chairman introduced John J. Donovan of Oakland, who spoke briefly on "The Present Unsatisfactory Situation from the Point of View of the State Board of Architecture."

The Chairman then called upon H. Roy Kelley of Los Angeles, who gave his views on "The Present Unsatisfactory Situation from the Point of View of the Practicing Architect."

A telegram was received from Hotel Del Monte inviting the Association to hold its next convention at Del Monte. It was moved that a Convention Committee be appointed and this communication be referred to them. The Chairman stated that before adjourning he wished to say that the receipt of the invitation from Del Monte would indicate that the Association is on the map; that people are commencing to hear something about the S. A. C. A., and that he hoped the work of the Association would be kept before the public.

By motion duly made and carried the meeting adjourned at 12 noon to meet again at 2 p. m.

Members present were invited to lunch with the Executive Board and Advisory Council, in the mezzanine room of the Clift Hotel. Sixty members attended this informal lunch meeting.

AFTERNOON SESSION

The afternoon meeting on Friday opened at 2 o'clock. Mr. Donovan made a motion that H. Roy Kelley's paper be referred to the Publicity Committee for its use and for distribution not only to the architects but to those interested in the movement of this Association. Motion seconded and carried.

Mr. Garren advised that Frederick H. Meyer, who had given able and continued assistance to the organization work of the Association, was ill and unable to attend the convention. It was moved and unanimously carried that the Secretary be instructed to send a telegram to Mr. Meyer wishing him speedy recovery and expressing regrets at his absence.

The Secretary read a telegram from the City of Sacramento inviting the next convention to be held there. It was moved and motion carried that this be referred to the Convention Committee.

A communication was read from Austin Moore, step-son of the late Willis Polk, correcting misinformation in the papers crediting the Merner house as the last work of Mr. Polk and giving the credit for the Merner house to James H. Mitchell.

The Chairman announced the appointment of a Committee on Convention for 1929, as follows: Winsor Soule, Santa Barbara, Chairman; Jas. Dean, Sacramento; Wm. H. Wheeler, San Diego; Wm. O. Raiguel, Monterey; C. J. Ryland, Fresno.

The Chairman called on Harris C. Allen

to speak on "The Present Unsatisfactory Situation from the Point of View of the Public."

The chairman advised that he would deviate from the program for a moment to introduce a woman architect whom he had just noticed was present and who was one of the first to sign the roll as an active member of the Association. The Chairman asked the members to rise and introduced Miss Bridgman, whom he asked to say a few words.

Miss Bridgman thanked the members assembled and said she felt a little lonely at being the only woman architect present; that she was sure there were others who might have been at the convention. She said that there was a point which Mr. Allen did not mention; that it concerned architects who did smaller domestic work in connection with building and loan associations; that when she sent clients to them they were told by the building and loan associations that they could not carry out those plans for the amount they wished to spend, but they would make a house just as attractive and bring it within the means the client wished to spend.

Regarding advertising, Miss Bridgman felt that the architects' buildings were their advertisements. She further stated that the profession of architecture could be advertised just as the doctors' profession was advertised in the newspapers recently, in an article regarding the health of school children and in another regarding their teeth.

The chairman next called on Wm. H. Wheeler of San Diego, President of the State Board of Architecture, to give his ideas on "The Need for Enforcement of the State Act."

The Chairman asked John C. Austin of Los Angeles, to report for the Committee on Resolutions. Mr. Austin reported through Chas. F. B. Roeth, as follows:

"We beg to report that it was moved, seconded and unanimously carried by your Resolutions Committee, that the Constitution as presented to the convention this morning, be recommended for adoption.

"Motion was made, seconded and carried that the Constitution as presented to the convention this morning be adopted, and this report of the committee be accepted.

"It is the unanimous recommendation of the Resolution Committee that the present officers retain their offices until the 1929 convention. Moved, seconded and carried by the convention.

"It was moved, seconded and unanimously carried that the following resolution be presented:

"Whereas in contractural relations between owners and builders there is a lack of understanding upon the part of the general public to the provisions and effects of the California Lien Laws and whereas this lack of understanding often reacts to the financial disadvantages of the owner,

"Therefore, be it resolved that it be the consensus of opinion of this Association in meeting assembled, that all California architects should thoroughly familiarize themselves as to the provisions of the State Lien Laws in order to be in a position properly to advise their clients regarding the desirability of requiring bond for the faithful performance of the contracts and to protect them against lien claims."

Moved, seconded and carried by the convention assembled.

A resolution was presented to change the name of the Association to read "California State Architects Association." It was moved, seconded and unanimously carried that this resolution be unfavorably reported.

Mr. Austin advised that this had been unfavorably reported on account of change in stationery that would otherwise be necessary, and also on account of confusion that might arise if name were changed at first meeting. He recommended that during the coming year the matter would be given thought by the members, as a name is important, and the next convention would be a good time for the change.

The matter was laid upon the table by a motion moved, seconded and carried.

Mr. Hunt: As one of those who have been working on the Constitution and By-Laws, and with the knowledge that the document will bear further study, I move that it is the sense of the meeting that the Board of Directors, through the Chairman, appoint a Constitution and By-Laws Committee to further study the document and make at the next convention such recommendations as to its rearrangement in cer-

tain places, as it may deem necessary and advisable.

Motion was seconded and carried.

John S. Siebert spoke of the need to get propaganda to the public. The public does not read technical literature. Although advertising was considered taboo, times have changed very materially, and advertising, as carried on today, is not considered unethical. Even radio is pressed into service by the medical profession. We have prepared, in San Diego, a series of articles relating to the architect and his functions; trying to point out to the public the difference between architectural service and draftsman's or other's. Papers at first refused space—wanted pictures. We have struck a happy medium and the papers have agreed to give a page to try the public, but wanted it distinctly understood that they will publish propaganda free of charge. This should spread throughout the state. Newspapers want good things. We agreed to furnish articles such as "How a Poor Design Can be made Good," to have the two plans pictured and ask each architect to get two sketches with write-up.

The chairman asked G. B. McDougall, pioneer member of the profession, and State Architect, if he would address the convention.

"I thank you so much for characterizing me as a pioneer architect," said Mr. McDougall. "I am just a youngster, however, and hope to be for some time. I see some other pioneers here, too!

"It is a great privilege to be permitted to stand before such a body of men as this. We have had many experiences together—most of us in connection with the American Institute of Architects. We respect the A. I. A. among others, because of its large experience. I feel great respect toward that association. It seems to me it is very wonderful step in the right direction, eventually with the idea of enlisting the interest of all architects in the state. One of the things it doubtless will do as it goes forward will be to educate the architects more with respect to the real purpose and real function of this profession and with respect to our present day civilization. Another thing that has occurred to me is that we suffer in a measure because we do not know the public and the public does not know us.

"It would be well to stop from time to time and take inventory of ourselves as to whether we have the right mental and spiritual idea of the purposes of the profession. What we do now becomes the history of this time and is for the benefit of those who come after us. It is a privilege and great responsibility."

Wm. Mooser of San Francisco, was asked by the chairman to speak. Mr. Mooser said in part:

"I have been here probably as long as most anybody. Mr. McDougall covered a great deal of ground and thoughts that we have had. I am particularly glad that this organization has finally come about. We have talked this thing for twenty or twenty-five years.

"In the first place, the bringing together of architects of the state is a big thing. I have practiced all over this state and I find that architects don't know each other and have not a very broad view of the practice of architecture; that they make a great many mistakes unknowingly. They advise clients and others in a wrong way.

"As to professional service, fees, etc., the only way I can see to overcome it is by an association of this kind, where matters are discussed. Some communities lack knowledge, especially regarding fees, of the architect's services. I have had difficulty with architects in setting up certain ideas about the profession.

"As to the State Board, I want to remind you that some years ago some of us went to the State Legislature and were in great danger of having the law expunged from the records because we asked a little too much. We spent money and time and almost lost everything because it was thought that the architects wanted to stop people from making plans. The proposed amendments should not be too drastic or they will never get through the Legislature."

Jas. S. Dean of Sacramento, spoke briefly as follows:

"I feel that I have a practical knowledge,

[Turn to Page 65]

THE LAFAYETTE DAM FAILURE

ON the night following September 17th, 1928, the engineers in charge of construction of Lafayette dam, in Contra Costa County, California, discovered several cracks opening along the northern or downstream slope and an examination showed an incipient rise of the material at the toe of that slope. By 6 o'clock in the morning of September 18th these cracks had opened and increased in number, and the moving material at the toe was slightly more in evidence. Since that time there has been a gradual widening of these cracks and a slight creeping of a portion of the material of the dam toward the north. The cracks revealed no saturated condition of the embankments which could account for the movement in whole or in part. The rise of the natural material at the toe shows a movement in the foundation indicating that the whole trouble was due to a yield of the foundation, mainly compression.

The north half of the dam is composed of the coarsest materials available; principally sand, gravel and sandstone, although it carries some ten to twelve per cent of clay on an average. The middle portion or axis of the dam consists of a clay core selected for its water tightness, and carries a considerable percentage of sand or grit ranging from ten to fifty per cent. The upstream half of the dam is also composed largely of clay, and particular attention has been paid to moistening and compacting these two sections of the dam so as to effectively stop or prevent any seepage into the dam. The downstream portion composed of sandy materials is designed to permit downward movement of any water entering it, and is provided with a drainage system which extends thruout the bottom of the downstream half of the dam. These two precautions of porous materials and a thorough drainage system were designed to keep the north or downstream half of the dam practically dry and proved effective. The yield of the foundation is a phenomenon that was bound to occur, if at all, when the load was placed on it, and before placing the structure in use.

NORTH END OF BREAK NEAR CREST, LAFAYETTE DAM

Engineering and geological investigations are in progress to determine the specific cause

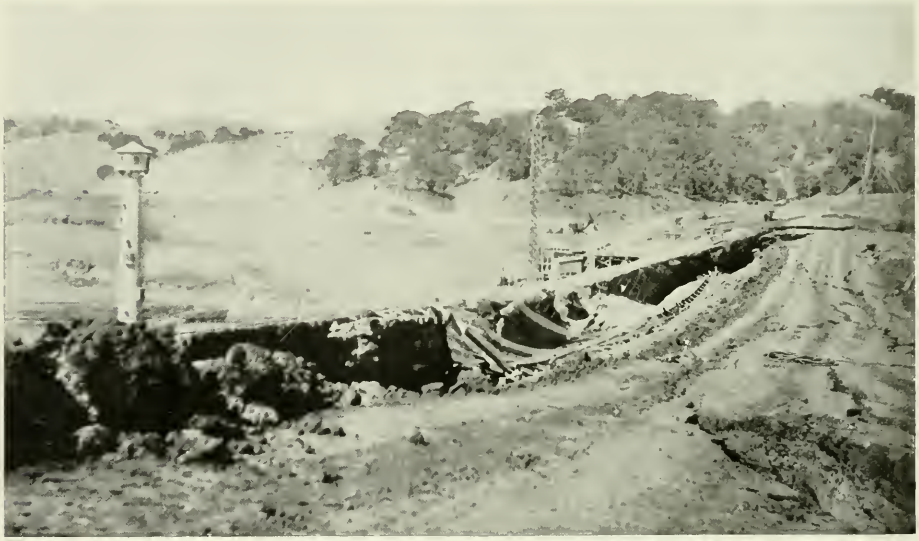
and safe remedies for the trouble developed.

The following statement, prepared for this magazine by M. M. O'Shaughnessy, city engineer of San Francisco and designer of the Hetch Hetchy dam, gives a clear version of the condition at the Lafayette dam as noted by himself and his assistant, both before and after the slide:

On the 17th of May, 1928, I visited the Lafayette dam of the Eastbay Water District and spent about an hour on the site, accompanied by Mr. Sturgeon, resident engineer, and the contractor's foreman.

I have never seen an earthen dam better organized or more safely designed. It has a good concrete skin on the water face, with an under layer of gravel to give drainage from the mass. There is a concrete toe wall in the center which made a firm contact with the underlying foundation, and there were perhaps forty trucks employed bringing in clay and materials to complete the structure. The clay was for the central core of the dam for tightness. There were, perhaps, 1,000,000 cubic yards of earth in the dam at that date.

Since then it has been steadily raised, until it has now reached a height of about 155 feet above the foundation. This brings a vertical pressure of about 8½ tons per square foot on the underlying formation at the bottom of the dam.



UP-STREAM CREST OF LAFAYETTE DAM, SHOWING SLIPPING OF BODY FROM CONCRETE SKIN

On September 17th there were probably over 1,700,000 cubic yards of material in place, and only 15 feet more of the top remained to be completed to finish the dam to the total height.

The length of the crest across the valley was 1855 feet, and the cross section of the dam along the floor of the valley at base was 1060 feet.

The slide of September 17th and succeeding days must have been due to settle-

EDITOR'S NOTE—The Lafayette dam is reputed to be one of the largest earth filled structures of its kind in the world. It is 900 feet wide at the base, 200 feet wide at the top, 1100 feet long at the bottom and 130 feet high. At the bottom a concrete abutment 20 feet wide was constructed to prevent seepage between the foundation and the earth fill. The up-stream side of the dam is covered with a facing of concrete 10 to 12 inches in thickness to prevent washing of the dam face. The dam was designed to impound 4,000,000,000 gallons of water from the Mokelumne river to be delivered by an aqueduct and pipe line. Except for the natural run-off from the hills there is now no water behind the dam. The structure was 80 per cent completed.

ment in the underlying formation under the downstream portion of the dam, which evidently had not been properly explored for stability, and can perhaps be corrected by drainage and the substitution of coarser materials on the downstream section of the toe at a relatively moderate expense.

The upstream toe of the dam has undoubtedly been carried down to a good firm formation. No water can pass from the reservoir above the dam through it, as the concrete facing is impervious. The volume of water in the reservoir is relatively small, so that any alarm by the inhabitants below the dam is entirely unwarranted at the present time.

I have not visited the structure since the slide took place, but I have been advised by my designing engineer on dams, Mr. R. L. Allin, who saw the situation on the 23rd of September, 1928, that there are various cracks in the affected portion which descend vertically through the dam, covering a width of 500 feet on the water face and extending through the mass of the dam to the downstream toe. The affected portion has settled vertically 15 or 20 feet and moved horizontally downstream for another 20 feet.

It is an aggravating and disturbing situation for the engineers and contractors engaged in the work, as operations must now cease until a definite and conclusive study is made of the character of the materials underlying the foundation. Steps will have to be taken to mitigate the slide, which will undoubtedly be costly from a structural point of view. But so far as human life is concerned, there is no danger whatever of any damages resulting from a collapse of the dam, as the amount of water above it is comparatively small, and its service in connection with the water system was as an auxiliary reservoir into which water had to be pumped from the main portions of the system.

Together with the St. Francis dam failure in Los Angeles, it demonstrates to engineers the great importance of securing absolute definite information on the character of the foundations before designing any structure.

M. M. O'Shaughnessy, City Engineer.

ARCHITECTS' CONVENTION

[Continued from Page 62]

being a member of the State Board and have had something to do with the inception of the Association. In helping us with legislative work, I know it can do us a great deal of good to have the Act changed, so that we could be more active and enforce the law to better advantage.

"You can help educate the public so that enforcing the law will not be necessary.

"Let us know each other and enjoy the social activities architects should have."

The chairman asked Richard Barrett of Barrett and Barrett, who have been employed as the Association's attorneys in drawing up the proposed amendments to the State Act, to report the synopsis of the proposed amendments to the law. The report in brief follows:

The committee has done most of the work and we have simply put it in legal form.

We are not trying to introduce too much. The old bill has been tested by the Supreme Court and it was thought best to amend it.

The principal changes are as follows:

An architect, within the meaning of the Act, shall be one who holds a certificate under authority of the Act.

The enforcement clause to be amended to give Board and District Board more adequate authority to enforce the Act.

Issued certificate to be placed with the State Board of Architecture instead of with the Secretary of State. Board can issue.

Suggest that for the time being, the fee be not to exceed $10 with a provision that State Board of Architecture can reduce that as soon as they get ready.

Suggestion of Mr. Herron, Director of Finance, to make a State Board of Architecture Northern District fund and State Board of Architecture Southern District fund.

BANQUET GREAT EVENT

The banquet was held in the Florentine room of the Clift Hotel, following a reception on the mezzanine floor. There were 150 members in attendance.

In the absence of Frederick H. Meyer, Harris Allen acted as chairman of the evening.

A musical program was rendered by Messrs. Austin W. Sperry and Chas. Bulotti with a number of songs accompanied by Uda Waldrop at the piano.

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MY EUROPEAN IMPRESSIONS

By
C O Clausen Architect San Francisco

VIII. QUAINT NORWEGIAN ARCHITECTURE

THE origin of Norway's ancient wooden churches, called "Stave-kirkes," resembling Chinese structures, is unknown. These interesting specimens of the early Christian period date back to the first part of the twelfth century.

As I stood before one of these churches in Bergen, I wondered if the old Vikings had possibly visited China in their travels and had been inspired by the architecture of that distant land.

The unique character of the buildings is different from any other style of architecture in Europe. Built entirely of wood, now black with age, their curious gables, dragon heads, peculiar carvings and runic inscriptions present a most extraordinary appearance. Their interiors, in most cases, consist of a single room, about forty feet long, with a roughly hewn wooden altar at one end and surrounded by a sort of cloister of open woodwork.

From the beginning of their history the Norsemen had a craving for heroic deeds and fame. The nature of the rugged country made sea travel easier than wandering over land in search of adventure, so they constructed ships and set out on expeditions to foreign shores. They usually started out from the west coast of Norway and sailed to the Hebrides, Shetland and Orkney Islands, gradually extending to Ireland and England. Sometimes they settled in Great Britain and became friendly with the Celts, with whom they inter-married and established trade relations. They afterwards extended their travels to France, Italy, Spain and Greece, and everywhere gained notoriety by their courage and prowess in war.

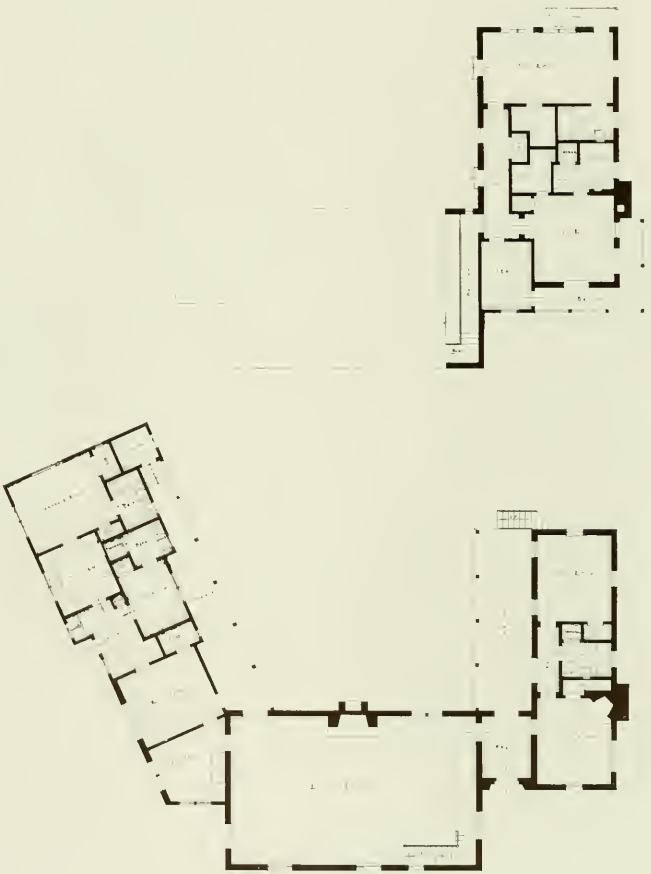
The Norwegian Saga has accounts of Vikings who visited America before 1000 A. D., but the most complete account is that of Leif Erickson, who set out with thirty-five men in 1003 A. D. and reached Massachusetts, which he called "Vineland." This happened nearly five hundred years before Columbus landed at San Salvador.

The remains of an old Viking ship were dug up many years ago from a mound near the entrance to Oslo Fiord, in which it had been well preserved in blue clay for over a thousand years. It is eighty feet long and sixteen feet wide at the broadest part. This ancient vessel is now on exhibition at the University of Oslo, together with many appliances and implements used by its crew. The sight of these relics is most impressive.

As in the days of old, the Norwegians still love and follow the sea, and their nation stands high in the world's commerce.

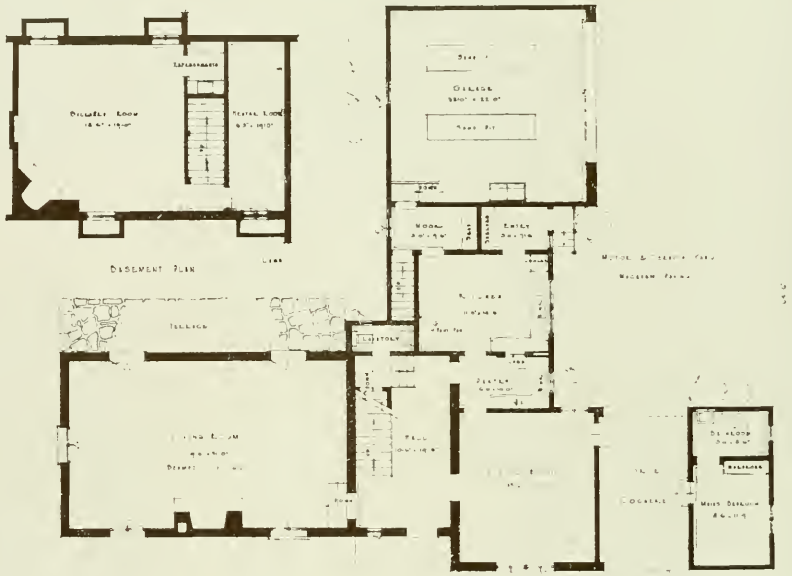
QUAINT NORWEGIAN CHURCH AT BERGEN

RANCH HOUSE FOR HAROLD W. TUTTLE, LAS TURAS, CALIFORNIA
JOHN BYERS, ARCHITECT



FIRST AND SECOND FLOOR PLANS, RANCH HOUSE FOR HAROLD TUTTLE
JOHN BYERS, ARCHITECT

HOUSE FOR ERIC BARCLAY, "THE RIVIERA," CALIFORNIA
JOHN BYERS, ARCHITECT



FIRST FLOOR PLAN, HOUSE FOR ERIC BARCLAY
JOHN BYERS, ARCHITECT

Miles Berne, Photo

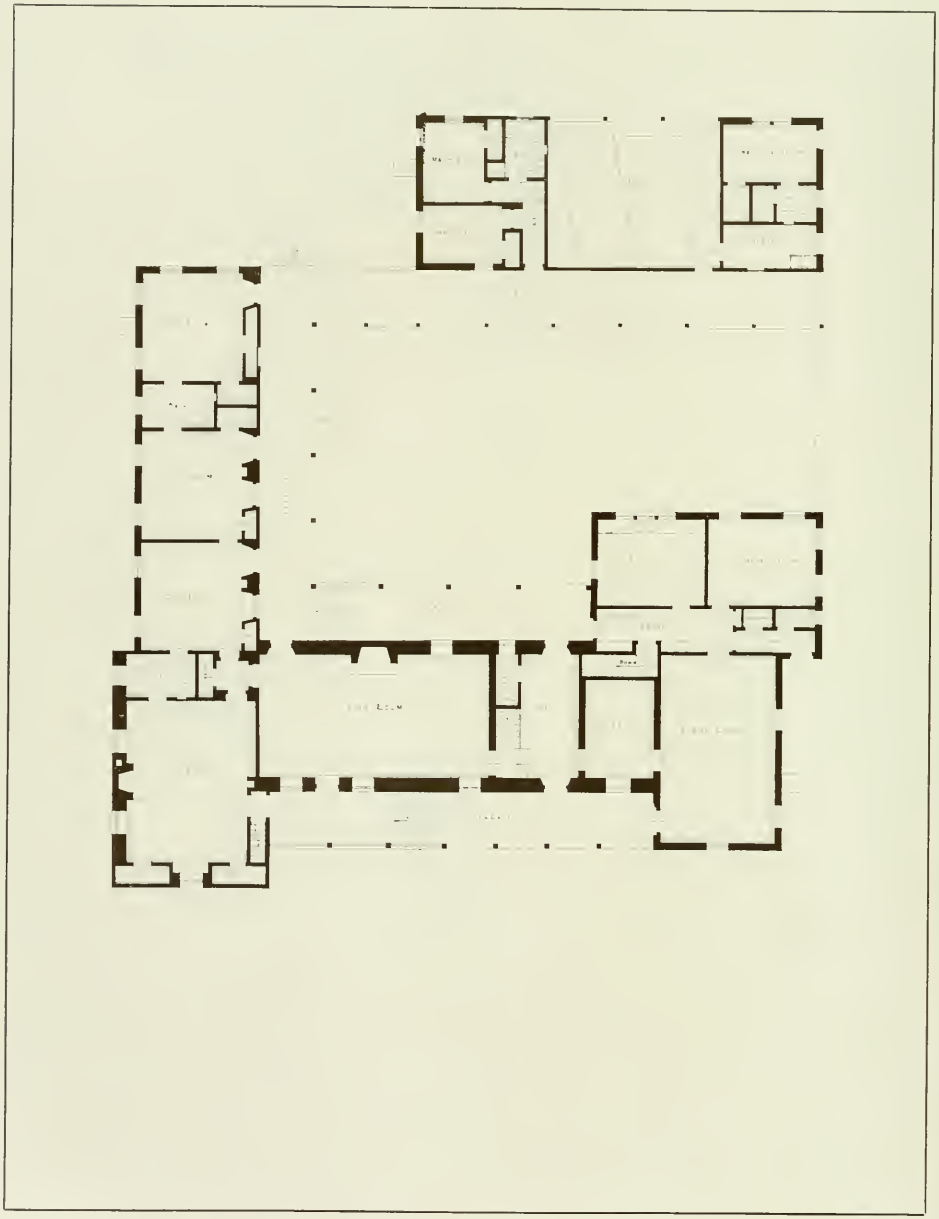
RESIDENCE FOR ROY S. GOODRICH, BEL-AIR, CALIFORNIA

JOHN BYERS, ARCHITECT

RANCH HOUSE FOR Y. R. DEL VALLE, "THE RIVIERA," CALIFORNIA
JOHN BYERS, ARCHITECT

The ARCHITECT AND ENGINEER

RANCH HOUSE FOR Y. R. DEL VALLE, "THE RIVIERA," CALIFORNIA
JOHN BYERS, ARCHITECT

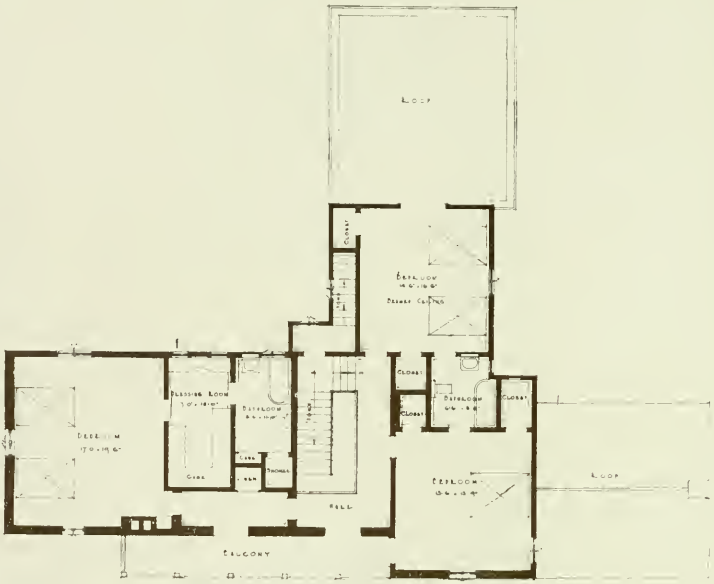


PLAN, RANCH HOUSE, FOR Y. R. DEL VALLE, "THE RIVIERA," CALIFORNIA
JOHN BYERS, ARCHITECT

Miles Berne, Photo

HOUSE FOR ERIC BARCLAY, "THE RIVIERA," CALIFORNIA

JOHN BYERS, ARCHITECT



SECOND FLOOR PLAN, HOUSE FOR ERIC BARCLAY
JOHN BYERS, ARCHITECT

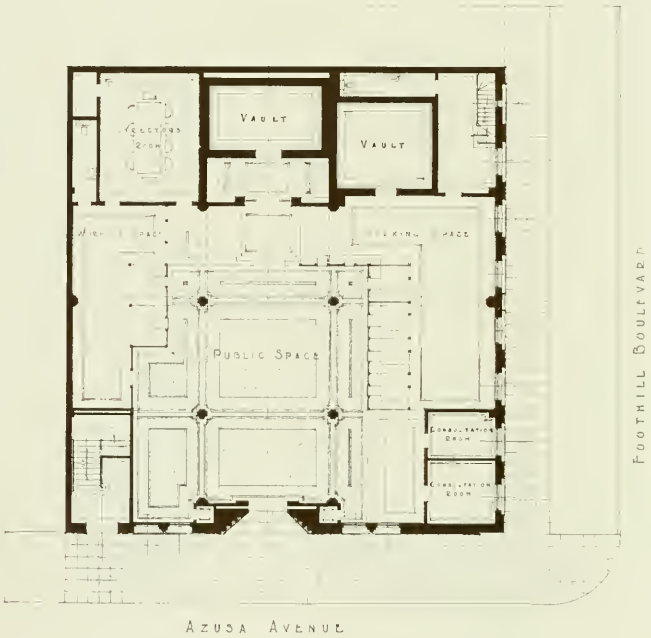
The ARCHITECT AND ENGINEER

HOUSE FOR MRS. J. M. SCHNEIDER, LOS ANGELES
JOHN BYERS, ARCHITECT

Mott Studios, Photo

FIRST NATIONAL BANK, AZUSA, CALIFORNIA

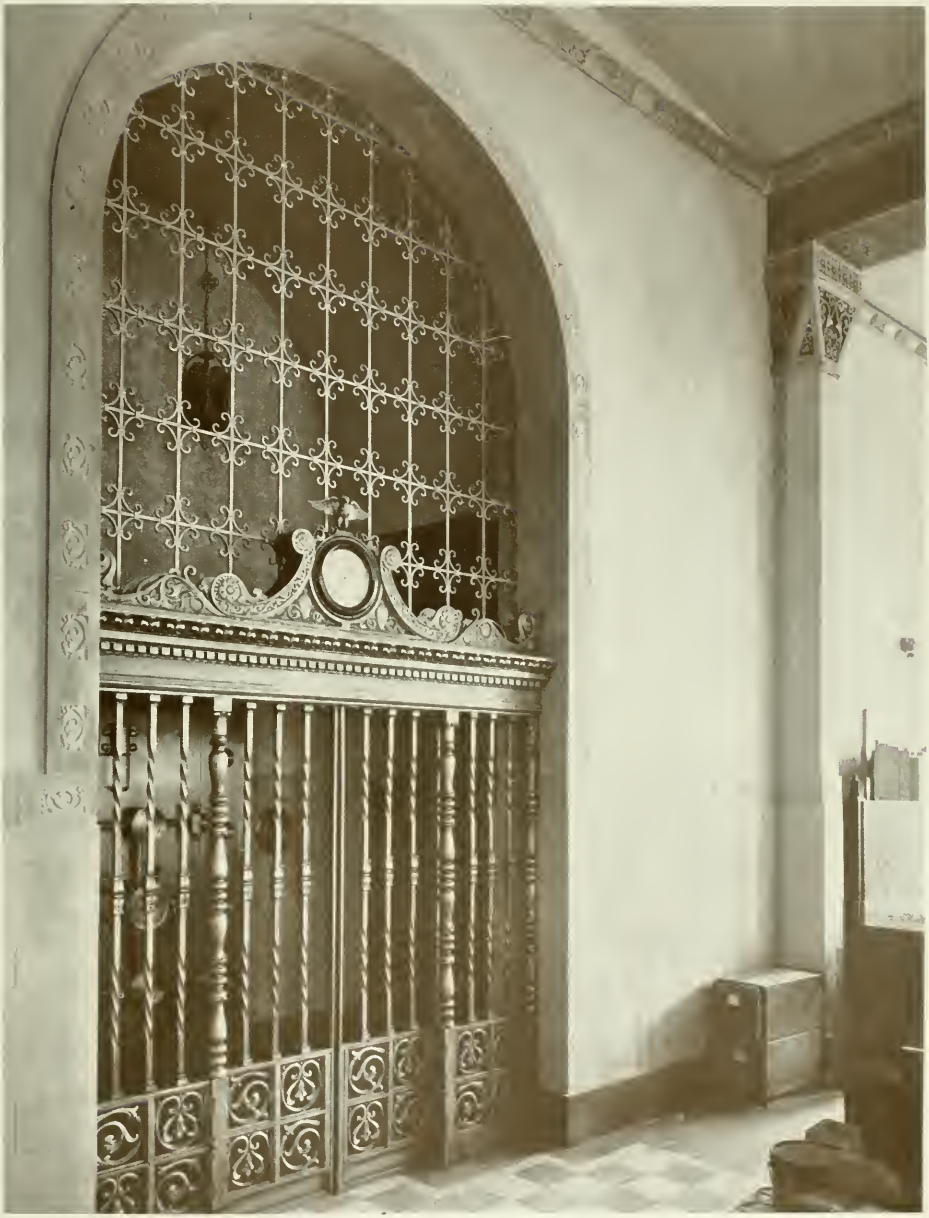
ROBERT H. ORR, ARCHITECT



PLAN, FIRST NATIONAL BANK, AZUSA, CALIFORNIA
ROBERT H. ORR, ARCHITECT

MAIN ENTRANCE, FIRST NATIONAL BANK, AZUSA, CALIFORNIA
ROBERT H. ORR, ARCHITECT

ENTRANCE DETAIL, FIRST NATIONAL BANK, AZUSA, CALIFORNIA
ROBERT H. ORR, ARCHITECT



ENTRANCE TO VAULT, FIRST NATIONAL BANK, AZUSA, CALIFORNIA
ROBERT H. ORR, ARCHITECT

McCullagh, Photo *K. E. Parker Company, Builders*

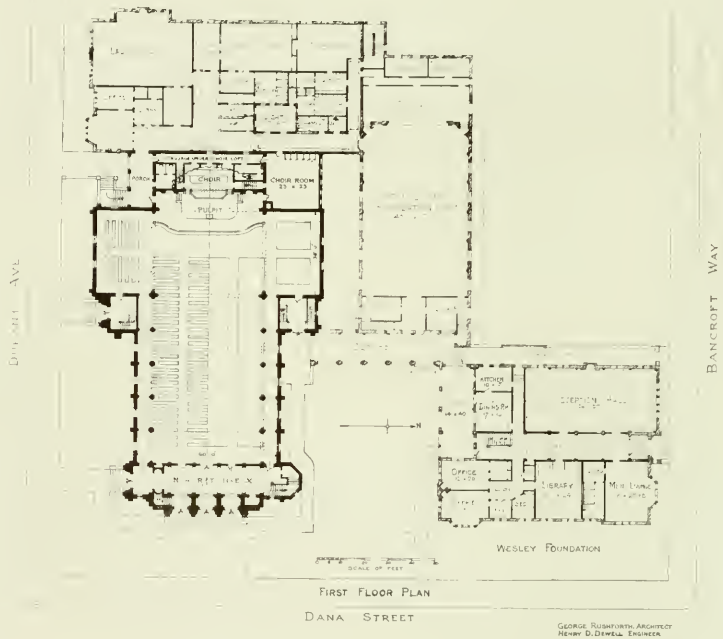
FIRST METHODIST EPISCOPAL CHURCH, BERKELEY

GEORGE RUSHFORTH, ARCHITECT

K. E. Parker Company, Builders

FIRST METHODIST EPISCOPAL CHURCH, BERKELEY

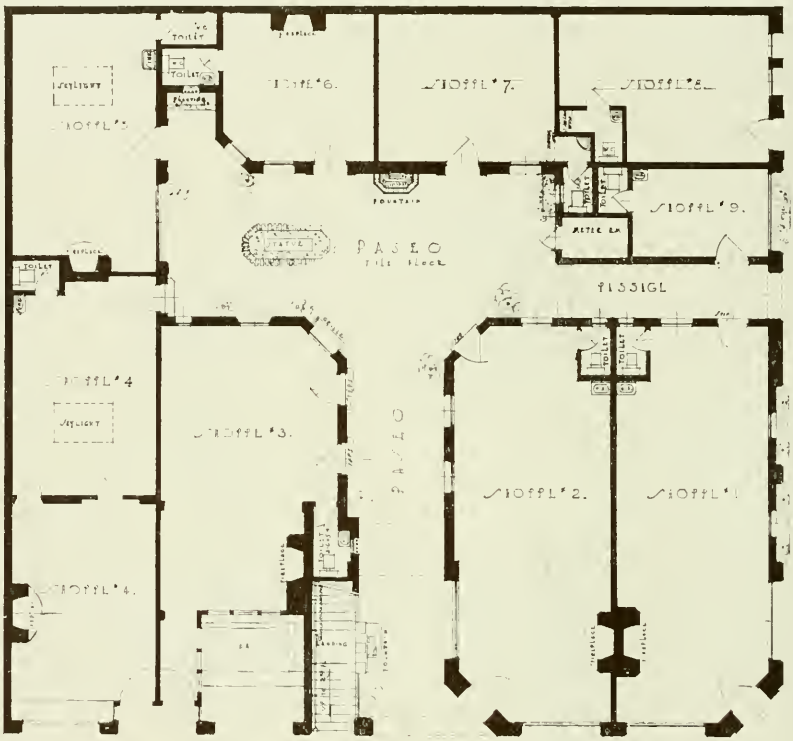
GEORGE RUSHFORTH, ARCHITECT



PLAN, FIRST METHODIST EPISCOPAL CHURCH, BERKELEY
GEORGE RUSHFORTH, ARCHITECT

SHOPPE BUILDING FOR L. C. MERRELL, CARMEL, CALIFORNIA
BLAINE AND OLSON, ARCHITECTS

SHOPPE BUILDING FOR L. C. MERRELL, CARMEL, CALIFORNIA
BLAINE AND OLSON, ARCHITECTS



PLAN, SHOPPE BUILDING FOR L. C. MERRELL, CARMEL

BLAINE AND OLSON, ARCHITECTS

SHOPPE BUILDING FOR L. C. MERRELL, CARMEL, CALIFORNIA

BLAINE AND OLSON, ARCHITECTS

EL PASEO BUILDING at CARMEL

By Perry Newberry~

REVEALING a fascinating study in light and shadow, El Paseo Building, at the corner of Seventh and Dolores streets, in Carmel-by-the-Sea, is a real achievement in reproducing the interesting architectural features of the old Spanish building.

The Moorish arches, the parapets, the turrets, the tower, the splade columns, irregular tile eaves, and the scalloped edges of the iron balconies throw shadows on the building even during the mid-day sun that brings a great relief from the monotony of the average building.

Andalusian chiefly in character, the El Paseo Building brings back precedents that might have been forgotten in the pace today for modernity and efficiency were it not for the ideal of restoring something beautiful and useful as well.

The attempt to give the building the rough character of the Spanish style and to put on the appearance of age, despite the modern materials, tools and workmanship of this era, has been successful, but only after constant oversight of every workman.

The dark, greyish hand-made tiles on the roof, that must assume an age where they have collected much stain from dirt and weather that they do not possess, are offered in contrast to the creamy walls that have the adobe finish and appear to be out of plumb.

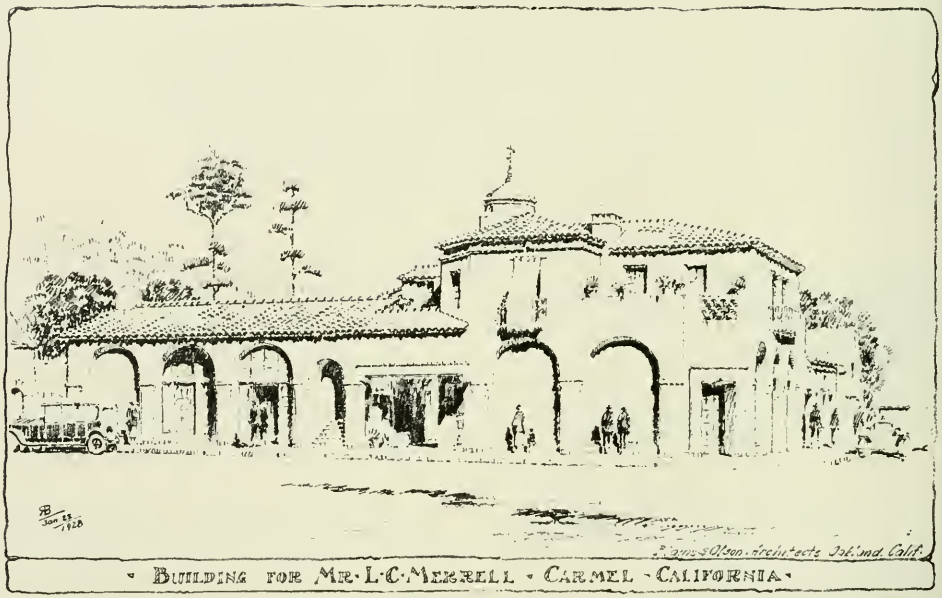
Hand-made tile of variegated colors, all imported, is used under the windows, on the rise of steps on the stairway and in front of doors.

The paseo, or passageway, that intersects the building in a T-shape, is another lovely and pleasant feature of the building that suggests the languor of life in Spain and Mexico. Flowers in pots and in plots under windows and cool fountains laid with tile adorn the paseo. The hand-made tile flooring on the walk is loosely joined to permit moss to grow in between.

DETAIL, SHOPPE BUILDING, CARMEL

No two doors in the building are alike. The hand-made, hand-forged wrought iron work in the window grills all have a different twist. The wood window grill is sand-blown, giving the appearance of great age. The grill window inside the paseo is from a measured drawing made in Cordova by the architects.

What appears to be a heavy wood beam that supports the central arch of the paseo,



SHOPPE BUILDING FOR L. C. MERRELL, CARMEL, CALIFORNIA
Blaine and Olson, Architects

is not wood but concrete. The broad mould was of rough wood and the concrete was given a wood stain. In Spain, where there is practically no lumber, much simulance of wood is undertaken.

The lanterns that hang in the paseo were designed by the architects and the brackets are all hand-carved. A number of tile panels, placed in the building at different intervals, are of imported tile.

The single stairway that begins on Dolores street, actually bridges the paseo. A graceful arch extends from the top that appears to buttress one wing of the building.

The interior walls are of much the same texture as the exterior. Exposed wood ceilings are stained their natural color as near as possible. Every shop has a fireplace, some are of brick with panels of Kadine tile, and all have dampers.

The rope rail on the stairway is interesting. The iron brackets that hold it are hand-forged, as well as the iron rail on the outside.

There is a distinction about every detail of the building. The tower is Mexican in character and is designed from nothing but plain tile. The weather vane is a gull and a fish, of wrought iron. The parapet on the corner of the building is designed of plain brick and tile.

Illuminated at night, El Paseo Building has a grace and beauty that is not caught in the day. The lanterns that hang over the paseo shed a soft amber light that brings out all its hidden beauty. Flood lights in the shop windows suffuse the interior and both display the archtiectural gem that the building is.

SHOPPE BUILDING FOR L. C. MERRELL, CARMEL, CALIFORNIA

Blaine and Olson, Architects

SHOPPE BUILDING FOR L. C. MERRELL, CARMEL, CALIFORNIA
Blaine and Olson, Architects

RESIDENCE FOR ROY S. GOODRICH, BEL-AIR, CALIFORNIA
John Byers, Architect

ARCHITECTS' CONVENTION

[Continued from Page 65]

There followed some further entertainment by John O'Brien and Company.

Following the musical selections, Robert Newton Lynch, Vice-President and Manager of the San Francisco Chamber of Commerce, spoke on "The Value of Architecture to the Commonwealth of California." This portion of the program was broadcast over radio KYA.

The following members spoke:

Myron Hunt: "Support of the Association by the A. I. A.; Its Influence and Guidance."

Albert J. Evers: "Experience of State Board Relative to Qualifications of Applicants for Certificates."

Howard G. Bissell: "Developing Public Appreciation for Architecture."

William I. Garren: "Prospects for the Future in the Practice of Architecture in California."

During the banquet there was an exhibition of architectural masterpieces by some of California's famous architects, including Myron Hunt, L. C. Mullgardt and Miller & Pflueger. The drawings were the work of a committee consisting of Messrs. Gutterson, Morrow, Ballantine, Wellington and Bycko, and will be reproduced in THE ARCHITECT AND ENGINEER next month.

SATURDAY MORNING SESSION

A. J. Evers, Vice-Chairman, Executive Board, presided at this meeting. The Secretary read a letter from the Los Angeles Chamber of Commerce cordially inviting the Association to consider their city as the place for the next convention.

Winsor Soule reported that after giving the matter due consideration, the Convention Committee was unanimous in recommending to the Association that the next convention be held in the City of Los Angeles.

Mr. Wyckoff of San Jose, offered a motion that the Association express appreciation to the following persons and organizations for their assistance in making the convention a success:

San Francisco Chronicle for its news items.

KYA for its broadcasting.

Messrs. Austin Sperry, Chas. Bulotti and Uda Waldrop for music rendered.

Frederick Seid for having full page of buildings in Chronicle.

Shasta Water Company for refreshments.

Architect and Engineer for programs.

Pacific Coast Architect for programs.

Clift Hotel management for courtesy shown; and that the secretary address a letter to each, expressing thanks.

The motion was seconded and carried.

Mr. Soule of Santa Barbara, thought that consideration should be given to the appointment of a special committee that might be called "Professional Co-operation Committee," which would get in touch with societies of engineers' and contractors' associations and advise them what we are attempting to do, and see if we could not get their support at Sacramento.

Mr. Allen, President, Northern California Chapter A. I. A., said:

"As a rule, architects are not used to public speaking. There should be material furnished and advisors should be instructed, so that they can cultivate in each district architects to speak before the various organizations. There is nothing so effective as personal contact. Have visited several of the service clubs in towns such as Palo Alto, where town officials were present and meetings were given publicity in newspapers. Architects do not take sufficient part in these community affairs. No one is so well qualified to assist city planning, parking, developing of public buildings, schools, etc. We have an obligation to give service to the public. Material could be furnished from talks at this convention."

Mr. Evers: "All have to think architecture and boost architecture. Give papers at lunch clubs, etc."

MR. KELLEY'S ADDRESS

Since my practice is mostly in the field of residence work, my observations are based largely on the situation as I have found it in the residence field. As we all know, a very small percentage of houses are planned or designed by architects, so it is there that the large percentage of incompetent designers—builders—are doing the greatest harm.

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The ARCHITECT'S VIEWPOINT

- *Value of Architectural Service*
- *Loan Companies Seek Expert Advice*
- *Not All California Architecture Is Good*

Contributing Editors
WILLIAM C. HAYS . . *San Francisco*
CARLETON M. WINSLOW . *Los Angeles*
HAROLD W. DOTY . . . *Portland, Ore.*
CHARLES H. ALDEN . . *Seattle, Wash.*

IT is axiomatic that the architect, the *optima artista* as Michael Angelo would have it, has always endeavored to give the world the fairest of beauty that was in him to express, commensurate, of course, with the limitations imposed upon him by the ideas, and sometimes whims, of his patrons, the ultimate of cost of the project, and the practical requirements of planning.

Until of late years he has had to struggle alone with the problem of harmony with surroundings, other buildings, configuration of land, landscape, scenery, etc. Sometimes imposed "style" entered into the problem and he has had to do his best to cover, like the bees in the new hive do the dead mouse with wax, to mitigate this difficult element of disharmony.

In any event, he walked alone. If he loved harmony, and was of that kind of architect who could forget the ramping vanity of individual expression, he worked to make his building fit in with the others adjacent. But he who was paying for the building or otherwise financing it, was not usually greatly interested, so long as he got what pleased him.

Within the last generation this condition has met with swift change. The more important subdivisions and housing projects would not today think of functioning without architectural boards of control to see to it that the buildings contemplated were of design and character to fit in with the project as a whole. Design also, with these boards, meets with serious scrutiny and censorship.

City buildings are meeting with more and more careful thought as to this problem of harmony with adjacent structures. The Metropolitan Life Insurance Company of New York, one of the largest financing agencies in the world loaning money on building projects, has for many years refused to lend money on buildings that did not come up to a high standard of architectural excellence. Undoubtedly the wonderful architectural aspect of Manhattan Island owes more to this one great influence than to all others combined.

Building and loan corporations, bonding and mortgaging companies, and other lending sources on the Pacific Coast have fallen far short of the standard set in New York. Office buildings in Los Angeles are designed and erected without the least regard to those adjacent: wonderful facades are gummed on to the fronts of concrete and brick boxes. When the owner, and sometimes the architects, are criticized for thus ignoring the element of harmony, they usually answer that the rentable square foot floor area cost works out to show a profit to the investor, and that it's not much use to worry about the neighboring buildings, for they will be torn down within the next ten years, anyway.

Signs are seen, however, that the loan companies are beginning to realize the importance of architectural excellence, as well as the financial return on the investment.

The Meline Bond and Mortgage Company of Los Angeles has recently established a well-known architect as an official of its staff, whose business it is to see that buildings upon which loans are placed shall come up to a high standard of good architecture. And this is not to promote the interests of architects as much as to insure the investment financially.

Of course, the professional architect will gain by this influence in the enlarged extent of his practice. And there is room for him. It is estimated that only three per cent of the plans submitted to the bond and mortgage companies for building loans bear the signatures of registered practitioners.

Can the public be educated as to the value and necessity of good architecture? What perplexes the architectural thinker is that there should be any *necessity* for "educating" him. Man comes in contact with the buildings that house and shelter him in his work, recreation and home life much more constantly than with any other work of man. One would think that mankind would *feel* architecture from infancy.

A friend just dropped in and said, while discussing this subject, that the average woman knew a lot about good design in clothing and very little about architecture as applied to the house she lived in. Which may be true; but Lord! look at the clothes some of them wear!

* * * *

A RECENT editorial in the American Architect sets one to thinking about "style." As if the subject were ever (consciously or unconsciously) out of one's mind!

Consideration of what is being done architecturally in Southern California makes me differ with the writer when he says that the Architect, either under stress of patrons' persuasion or by free mental election, deliberately chooses a "style" when he starts to work and follows the stylistic vocabulary as closely as consideration of plan and financial limitations will let him.

Not in California—not altogether. Much work that is very, very bad is done here, work that shows indications of pot-boiling, clientelate inhibition, downright vulgar inefficiency and mental ineptitude, but even a sketchy looking over of the field reveals the fact that there is here a rather loosely bound band of earnest seekers after the truth of architectural expression, always experimenting, trying hard to give Southern California that thing which is appropriate to the locality and practical to work, play or think in.

These men give their personal stamp to what they do, and yet there is affinity in all of it. In it there is something of Spain and Mexico, something of Italy, Northern Africa, England, and the Eastern American States—often a smack of the Midi de France. It is never a finished thing. It usually evidences an earnest desire to do it better.

It promises much, and it is doubtful if the things being built by this band of men ever become "old fashioned."

In any event, the public is realizing that this thing belongs here, and they like it. They like it so well that it is being done where it does not belong, in Minnesota, in Long Island. It is thrilling to watch its development.

CARLETON MONROE WINSLOW.

The ARCHITECT AND ENGINEER

SINCE 1905

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Psuedo-Engineers Not Wanted

"CALIFORNIA will become a dumping-ground for psuedo-engineers who are prohibited from practicing in their own states by virtue of registration laws, unless active measures are taken to prevent it," was the statement recently made before the California Engineers' Club by Donald M. Baker of Los Angeles, president of the California Engineers' Registration Association, and vice-president of the American Association of Engineers. The latter is a national organization with headquarters in Chicago, and is devoted to solving the social and economic problems of the engineering profession. It has been the instigator of the movement to have registration laws enacted in the various states, a movement that is receiving enthusiastic support. The Association has strong local chapters in the larger cities throughout the state of California, including San Francisco and Los Angeles.

With laws compelling the registration of engineers now effective in over half of the states in the Union, men who cannot qualify under the existing registration laws are moving to the states which do not have them, and California, due to the attractiveness of her climate and living conditions, is getting more than her share.

The Engineers' Registration Association will introduce a bill during the 1929 California Legislature requiring the registration of all qualified engineers. A law similar to that which now protects the architectural profession will be sought.

"Registration alone can raise the standard of the engineering profession," said Mr. Baker, "to the point where the public will have justified confidence in its members, and can prevent the influx into the profession of men who have no fundamental training or experience. It is only by registration that the profession can be purged of the unfit and the incompetent. It will prevent the transitman, the machinist or the electrician from hanging out his shingle in flush times as a civil, mechanical or electrical engineer unless he actually knows something of the fundamentals. Engineering is the only one of the so-called 'learned professions' in California in which a man at present is not called upon to present his credentials, as it were, to his clients certifying that he is familiar with at least the rudiments of his profession."

Hoover the Organizer

HERBERT Hoover's experience in knocking about the world in his profession of mining engineering has given him an understanding of human nature and an extraordinary ability to organize and execute far-reaching plans and policies that render him particularly well-fitted for the highest administrative office in the country. So says an article in the September issue of the Professional Engineer—official organ of the American Association of Engineers.

It will be remembered that at the time of the nomination of Woodrow Wilson, the question arose as to the value of Wilson's training as a college professor in coping with the problems of the nation. The contrast presented by the two men is one of practice vs. theory.

Whether Herbert Hoover is elected to the presidency of these United States or not, his nomination is nevertheless the greatest single act of recognition that the public has yet given to the engineering profession.

New Era For California Architects

THE recent convention of the State Association of California Architects in San Francisco, was a success beyond expectations. It was indeed fine to see the interest taken by the leaders of the profession from one end of the state to the other. It showed a spirit of loyalty and co-operation not heretofore manifest.

That much good is likely to follow in the wake of this convention there is every assurance. With 1200 certified architects solidly behind the movement and with an organization in the hands of competent officials, it should not be difficult to put over an intensive campaign that will bear fruit. Through the medium of this new organization the architects of California should be in a position to better solve their problems and better protect the public's welfare.

Other results confidently anticipated will be the preservation of the natural beauty of our Golden State; the further extension of those high qualities of art and architecture present in our public buildings and palatial homes; legislation that will stop the continued disfiguration of our beautiful cities with unsightly buildings and protect by good architecture and sound construction the interests and security of the investing public.

Plans were discussed and definitely agreed upon at the convention for certain legislation designed to safeguard public interests and place the services of the architect in the same avenue of public approval as the professions of medicine and law.

Organization will help to bring all this about for it has been apathy in individual architects that has blocked real constructive work in the past.

FLOOR TO CEILING PANELS

Douglas fir or Oregon pine panels in three and five ply are now available in sizes up to five feet wide and ten feet long. It is now possible to panel a room in one length from floor to ceiling and with the five-foot widths available, much larger clear surfaces may be obtained. These large dimensions are now regular standard sizes in fir plywoods, according to White Bros., wholesale hardwood lumber dealers of San Francisco.

COMPLIMENTARY WORDS

Editor THE ARCHITECT AND ENGINEER,
San Francisco.

Dear Sir,—

I wish to thank you for the space given the Pacific Southwest Exposition, and also to compliment you upon the fine quality of the photographic reproductions.

I consider it a real compliment to have any of my work given recognition by a magazine of the high architectural standing of THE ARCHITECT AND ENGINEER.

Very truly yours,
HUGH E. DAVIES, A. I. A.
Long Beach, Calif.

* * *

From L. A. Desjardins, Architect of Denver, the following:

"I am and have been familiar with your magazine and have been greatly pleased with its vast and rapid improvement. It should be recognized henceforth as the one very necessary high-class publication from the West, and it is my desire to show the greatest loyalty to the part of the country that I love and consider Home."

FAVOR FIVE-DAY WEEK

Endorsement of the five-day week for labor in California by John F. Dalton of Los Angeles, president of the California State Federation of Labor, featured the opening of the convention of that body in Sacramento, September 17. Mr. Dalton said in part: "The past year has witnessed much progress in the ranks of organized labor and has been a most harmonious one in the settlement of differences between employers and labor organizations. Only in rare instances and on a very small scale has a lockout or strike been resorted to. The five-day week is no longer a child of the imagination. In the northern part of the state agitation for the five-day week has been started. In the central part of the state it is at present in operation. In Santa Barbara and Fresno 800 members of the building trades are operating on the five-day week plan. It is also in the experimental stage in San Francisco, Sacramento, Watsonville, Vallejo and San Diego with the building trades."

BANK BUILDING

A one story reinforced concrete bank building is to be constructed at Suisun for the Solano county bank from plans by Albert F. Roller, architect, Crocker building, San Francisco.

WITH *the* ARCHITECTS

APARTMENT BUILDING

Plans have been completed in the office of H. C. Baumann, 251 Kearny street, San Francisco, for a number of large apartment houses, two of which will be on Broadway, west of Octavia street, San Francisco, for the Ridgeway Investment Company, Monson Brothers, contractors. They will cost $160,000 each.

At Pine and Monroe streets, a six-story steel frame and concrete apartment building will be erected by Meyer Brothers, from plans by Mr. Baumann. This structure, having forty-two apartments, will cost $150,000.

At 41st avenue and Point Lobos, J. Varsi will build an $80,000 building having eighteen two and three room apartments. Construction will be frame and brick veneer.

BERKELEY CAMPUS BUILDINGS

Robert G. Sproul, Comptroller of the University of California, has announced that more than $8,000,000 will be expended by the Regents during the next two years in construction work on the University Campus. Bids have already been taken for the $1,500,000 Sciences building from plans by George W. Kelham and construction will start immediately. Plans have been completed by W. C. Hays, for Giannini Hall, estimated to cost $500,000 and construction will be under way shortly. Other buildings soon to be started include a new infirmary, Arthur Brown, Jr., architect, and an International House on Bancroft way for which plans are being prepared by Mr. Kelham.

ENGLISH AND SPANISH HOMES

Plans are being prepared in the office of Newsom and Newsom, architects in the Federal Realty building, Oakland, for a $16,000 English type residence in Piedmont and a $30,000 Spanish house in Los Altos, Santa Clara county. The same architects recently awarded a contract for a $10,000 country house near the Castlewood Country club, Pleasanton, Alameda county.

ADDITIONS TO BILTMORE HOTEL

Plans are being prepared by Reginald D. Johnson, Architects' building, Los Angeles, for ten bungalows to be built on the grounds of the Biltmore Hotel at Santa Barbara. In addition to these cottages, the improvements will include a concrete swimming pool.

CIVIC CENTER BUILDINGS

Plans will shortly be sent out for figures for the general construction of the new San Francisco Opera House and American Legion building. Operations will start first on the Legion building, which will have steel frame and brick, granite and terra cotta exterior. It will cost $2,000,000. Later on bids will be taken for the Opera House, which is to cost $3,400,000 with a seating capacity of 3450. It will house one of the largest pipe organs on the Pacific Coast. Arthur Brown, Jr., and G. A. Lansburgh are the associated architects. A. Wagstaff is in charge of the special drafting room which is being maintained at 451 Montgomery street, San Francisco.

WINS FELLOWSHIP

Robert S. Hutchins, registered from Gridley, graduate in architecture in the 1928 class of the University of California, Berkeley, has been announced as one of two winners of a national design contest sponsored by the University of Pennsylvania.

As a result of winning this contest Hutchins will receive a $1000 fellowship for a year of study under Dr. Paul Cret, donor of the prizes, in the Department of Architecture at Pennsylvania. He had already determined to take the year of study whether he won the fellowship or not, and left for the east before hearing of the contest results.

BERKELEY APARTMENTS

Guy L. Brown, American Bank building, Oakland, is preparing preliminary drawings for a five story Class C apartment building to be built north of the University Campus, Berkeley, at an estimated cost of $125,000. There will be fifty two room apartments.

OAKLAND SCHOOL BUILDING

Plans have been completed by Blaine and Olson, architects, for the first unit of a Junior High school building at Peralta avenue and Hopkins street, Oakland, estimated to cost $125,000. Bids for the construction work are now being taken.

CLINIC BUILDING

A clinic building is to be built at Carmel Highlands from plans now being prepared by Louis Gill, architect, 32 Sefton building, San Diego. The owner is Grace Veile and the estimated cost is $75,000.

GRANTED CERTIFICATES

The following applicants were granted architects' certificates at the last meeting of the State Board of Architecture, Southern District, September 26: Wilfred Tunstall, 158 W. 80th street; Robert Vincent Derralh, 5431 Monroe street; James H. Garrott, 2111 E. 14th street; Hunter D. Scott, 941 W. 34th street; Kenneth M. Saunders, 787 E. Pico street, all of Los Angeles, and George Dorner Riddle, 203 Central building, Long Beach.

The following were granted certificates to practice architecture in California by the State Board, Northern District, at the meeting September 25: Leslie James Hendy, 525 Market street, San Francisco; Albert R. Williams, 1462 California street, San Francisco; Vernon W. Houghton, P. O. Box 158, Los Angeles.

HOTEL FOR MARIN COUNTY

Plans have been completed by H. C. Baumann, 251 Kearny street, San Francisco, for a $2,000,000 country club and hotel project for Marin county. The location embraces six hundred acres, formerly owned by the Hotaling Estate, at Sleepy Hollow, Fairfax. A seven story hotel, club house, power plant, two-hundred car garage, golf links, swimming pool, etc., are included in the ambitious project.

BUNGALOW COURT FOR ANTIOCH

Plans have been drawn by Leonard H. Ford, 1205 Harrison street, Oakland, for a one story frame and stucco bungalow court, having fourteen four-room apartments, at 6th and H streets, Antioch, Contra Costa county. The owner is the Peters Estate and the builder is Fred W. Peters, 68 Ridgeway avenue, Oakland. The project will represent an expenditure of $50,000.

LOS ANGELES WAREHOUSE

P. A. Palmer, formerly of San Francisco, now in the Insurance Exchange building, Los Angeles, has recently been awarded a contract to construct an eight story Class A loft and warehouse for the William B. Hess Corporation, Los Angeles. The architect is Russell Collins, Spring Arcade building, Los Angeles.

CONCRETE WAREHOUSE

Working drawings are being completed by F. Eugene Barton, Crocker building, San Francisco, for an eight story reinforced concrete warehouse on Geary street, near Fillmore, San Francisco. It will be 60x100 feet and cost $100,000. The exterior will be faced with pressed brick and terra cotta.

PERSONALS

I. E. Loveless has moved his offices from 714 Chester Williams building, Los Angeles, to suite 614 in the same building.

Lloyd Le Raine Pike, architect and engineer, announces the removal of his office to larger and better quarters in the Home Builders' building, Phoenix, Arizona.

Foster Weeks, associated with his father, William H. Weeks, architect of San Francisco, Oakland and San Jose, is again able to be at his office after several weeks at the San Jose hospital, where he was operated on for appendicitis.

Messrs. Grimes & Scott, formerly maintaining offices at 217 Balovich building, San Mateo, have dissolved partnership. Mr. Scott is temporarily associated with Edward F. Eames at 353 Sacramento street, San Francisco. Later he will open his own office.

Messrs. Postle & Postle announce the removal of their offices from the Van Nuys building to Suite 410, 437 S. Hill street, Los Angeles.

Harry B. Aarens, a licensed architect of Illinois, formerly of Chicago, has opened an office in Hollywood, Suite 48, Olesen building, 1558 N. Vine street. Mr. Aarens desires catalogs and information on building materials.

Loy L. Smith, architect and engineer, has returned to Los Angeles from Santa Paula to re-establish his practice in the Angel city after devoting his time since the St. Francis dam disaster to restoration of buildings throughout the devastated area.

Friends and associates of Louis C. Mullgardt, architect of San Francisco, sympathize with him in the recent loss of his son, who was killed by the fall of an airplane near Salinas, Monterey county.

Wm. Knowles, architect, 1214 Webster street, Oakland, recently returned from a four months' trip abroad.

FOUR HUNDRED ROOM HOTEL

Bids will be called for soon for the construction of the new fourteen story Earl Hotel, at the northeast corner of Third avenue and Union street, in Seattle, from plans by V. W. Vorhees, architect. The hotel building, which will contain 400 rooms, with furnishings, will represent an expenditure of approximately $1,200,000.

ARCHITECTS' SERVICE BUREAU

To fill a long felt need, the Pacific Gas and Electric Company is establishing in San Francisco an Architects' and Engineers' Information Service Bureau at 445 Sutter street.

The object of this bureau is to furnish information relative to the provisions and requirements for the use of gas and electric appliances. Through this work, information will be obtained for the architects and engineers on questions such as: character of gas and electric service; data on meter locations; standard wiring layouts and gas piping specifications; data on the costs of installation and operation of electric and gas appliances, including ranges, water heaters, heating equipment; data on recommended vents and flue construction, etc.

This work will be in charge of an advisory engineer, C. P. Hering, whose full time and service will be at the disposal of the architects and engineers.

SMALL HOUSE DESIGNS

The Los Angeles Builders' Exchange Association has donated its collection of house plans to the Small Home Plan Bureau, under the supervision of the Los Angeles Architectural Club, on the ground floor of the Architects' building, Fifth and Figueroa streets. This move was made in recognition of the Bureau's efforts toward effective service for the modest home builder.

These new plans will enlarge the Bureau's collection and offer the builder a wider choice in the selection of his home. The Bureau will be considerably furthered in its aim, which is to furnish the small home builder with houses of fine design, by acquiring these new plans.

CITY ARCHITECT RESIGNS

James S. Dean, city architect of Sacramento, designer of the Municipal Memorial Auditorium and other public buildings in Sacramento, has submitted his resignation to the city commissioners. Although he made no such statement in his letter, his resignation is understood to have been prompted by the present political situation in the city government. His letter merely stated he felt that he could no longer serve the city and asked that he be relieved. Mr. Dean was named to the post in 1925.

PARTNERSHIP DISSOLVED

The firm of De Lange & Collins, Watsonville, has dissolved partnership and J. H. De Lange, architect, has opened offices for the practice of architecture in Aptos, California.

STATE BUILDING PROJECTS

Public building projects totaling $1,718,500, which are to be inaugurated before February 1, 1929, are announced by the California State Division of Architecture as follows:

New cell block and hospital at Folsom prison. Estimated cost, $223,000. Work expected to start within a few weeks.

Main building at Chico State Teachers' College, replacing structure destroyed by fire last year. Estimated cost, $230,000. Bids to be advertised about November 1.

Training schools at San Francisco and San Jose Teachers' Colleges. Estimated cost $180,000 and $100,000, respectively. Bids to be called about January 1.

School, trades building and two patients' cottages at Pacific Colony, Los Angeles county. Estimated cost $140,000. Bids invited December 1.

Patients' building, Mendocino State Hospital. Estimated cost $95,000. Bids called latter part of November.

Kitchen, bakery, cold storage plant, dining room, at Patton State Hospital. Estimated cost $120,000. Bids called after January 1.

Norwalk State Hospital improvements, nurses', attendants' building, cost $36,000; assembly hall and chapel, $75,000, and warehouse, $7500.

Boys' dormitory at School for Blind in Berkeley. Estimated cost $75,000. Bids asked in latter part of November.

Cottage for female patients at Napa State Hospital, costing $90,000. Bids asked about December 15.

Gymnasium for Humboldt Teachers' College at Arcata, costing $75,000. Bids called in January.

Industrial building at Stockton State Hospital, costing $25,000. Bids called in January.

The State Architecture Department is preparing plans for a division office and shops at Eureka for the division of highways to cost in excess of $50,000.

The architecture staff also is engaged in planning a new State Teachers' College at San Diego, to cost approximately $350,000.

STEAM GENERATING PLANT

The Great Western Power Company has started the construction of a large steam generating plant in the Indian Basin District, San Francisco. The plans have been prepared by McClellan and Junkersfield structural engineers of New York City. The resident engineer is Harold K. Fox. Building and equipment will cost $3,500,000.

BERKELEY WAREHOUSE

Bliss and Fairweather, architects of San Francisco, have completed plans for a one story brick warehouse for the Continental Baking Company. It will be located on Allston Way, near Bona street, Berkeley, and construction will be handled by MacDonald and Kahn.

SOCIETY and CLUB MEETINGS

San Francisco Architectural Club

THE regular monthly business meeting was held October 3rd. President Lawrence Keyser presiding. Minutes of the last meeting were read and approved.

C. J. Sly reported an enrollment of 20 members in the new engineering class.

Al Williams announced that a new full size detail will commence October 15th, and that while the first detail class was started as an experiment, it was found to fill a need of the younger members of the profession and that the interest shown in the class warrants maintaining it as a permanent institution in the club. Those interested are requested to sign up in the club rooms.

* * *

The atelier massier reports that he hopes to build up the atelier to what it should be and he expects the members to take advantage of the opportunities offered by the Beaux Arts System of Design. With the new ruling mentioned below, a larger enrollment is expected in the analytique class.

Ira's entertainment report contained announcements of future trips and a report of the Gladding McBean trip which is given more in detail below.

The club held its annual Atelier dinner Friday evening, September 12th at the club rooms.

The interior decorations were served by a caterer and Ralph Berger.

The main event of the evening was the presentation to Mr. Weihe and Mr. Frick of two beautiful etchings. This gift from the Atelier boys to the patrons was to show in some material form the club's appreciation of their valuable services.

Mr. Weihe's speech of acceptance showed his deep appreciation of the thoughtfulness of the students. He urged them to do their best in the design problems and advised them to try for the scholarships offered by the Beaux Arts Institute of Design.

Mr. Frick's speech of acceptance of the etching contained a friendly warning to the boys to make the most of their Atelier days as the time for studies is entirely too short at its best.

Messrs. Gould and Krause, old timers of the club, made speeches bearing on ye goode old days when beer was beer and every draughting room was an Atelier.

The most important business of the evening was the changing of an old rule compelling every one who enters the analytique division to do nine plates of the classical orders.

This rule has been modified and it is now left to the judgment of patrons of the Beaux Arts Institute of Design, Messrs. Weihe and Frick, to state who shall do order plates and the number required, whether two, three or the full nine. They will also pass on the quality of work done and it is up to them to decide what plates shall be repeated. It is hoped that this new ruling will stimulate interest in the Analytique class and remove the antagonism that has existed so long between club members and the order class.

Al Williams naturally based his speech on the work of the detail class and stated that while he feels like a pioneer in the field he expects that the Principles of Architectural Detail Class will become more popular to the beginner who has to earn a living than the design courses. While you must create a design before you can construct it, most of the young men in an office do not see designing for the first few years but are paid for the knowledge they have of working drawings. The more they know of detailing in their first few years the more they earn. That does not mean that they should neglect design instruction which is important if they are to get anywhere in the profession, but their initial earning power is based on detailing.

President Lawrence Keyser made a speech with loyalty to the club as its keynote. By loyalty is meant paying dues to support the club, taking part in the administration of affairs and supporting all activities such as trips, theatre parties, etc. Education, good fellowship and co-operation are the main purposes of the club.

After the speeches the business of electing a massier resulted in Sous-Massier Ralph Berger being promoted and Ciampi selected as the new sous-massier.

* * *

The trip to the Gladding McBean plant at Lincoln was a time that will always be remembered by those attending.

The boat ride was perfect and merry time kept the boys up till quite late. Room 214 was the scene of much carnival spirit, but not the only one. Ira's jazz band strutted their stuff in the salon and on the front deck.

PAVILION OF ENTERTAINMENT BY RALPH BERGER
Student Work, Beaux Arts Institute of Design, San Francisco Architectural Club

The trip through the plant at Lincoln was instructive, from draughting room to the finishing section, where they put on the texture color.

The kilns would have come in for more attention if the temperature on the exterior was not so high. It being a warm day, some one suggested swimming pool and the boys piled in the busses and were whisked to the Lincoln Municipal McBean Memorial Pool where they stayed until lunch.

Luncheon was held in the grove nearby and 137 people from the club, terra cotta plant and other invited guests enjoyed a chicken dinner with music by some of the employees.

Mr. McBean, genial host, made a speech of welcome and expressed the wish that he could make it a yearly event.

President Lawrence Keyser thanked Mr. McBean on the behalf of the club for his courtesy and kindness in providing the outing and opportunity for the members to study terra cotta at first hand. Mr. McBean, with the assistance of Sales Manager Cole, provided comfortable means of transportation. After the lunch the remainder of the afternoon was spent in the swimming pool until time to return to the boat. Three large busses conveyed the crowd around the city of Sacramento and environs.

WAIKIKI BEACH HOTEL

Plans and specifications for the new Aloha Inn, at Waikiki, Hawaii, have been completed by Gilbert Stanley Underwood, Los Angeles architect, and will be used by Walter Gustin, Ltd., builders of the proposed hostelry. The plans call for a 200-room building, all with baths, to be completed by next June.

NORTHERN CALIFORNIA CHAPTER

The September meeting of Northern California Chapter, A. I. A., was held at the Mark Hopkins Hotel on Tuesday, the 25th, at 7:45 p. m.

C. P. Hering gave a short talk on Pacific Gas and Electric Company's new service to architects for giving immediate information in regard to gas and electric installations, placing of meters, range wiring and other data.

H. H. Gutterson made a report on honor awards for craftsmanship, stating that the jury had met and that there would be an exhibition in the southeast corner of the first floor of the Russ building.

The annual meeting will be held at the Mark Hopkins Hotel October 30th. The Nominating Committee consists of Morris M. Bruce, chairman; John Reid, Jr., Earle B. Bertz, A. Appleton and Lester W. Hurd.

The committee made a report through the chairman, Morris M. Bruce. The nominations presented were as follows: President, Harris C. Allen; Vice-President, H. H. Gutterson; Secretary-Treasurer, James H. Mitchell; Directors, Albert J. Evers and Lester Hurd, three years.

Morton Gleason sang several delightful solos which were enthusiastically encored.

The program for the evening was a discussion on "Modernism" and the use of "Historic Precedent."

Irving F. Morrow spoke on the necessity for freeing modern design from the shackling influence of forms and styles inherited from entirely different construction methods and social necessities of the past.

Ernest Weihe made a strong plea for a "Modernism" that recognizes the value of past experience, that uses traditional style intelligently, and that finds in the beautiful historic forms of designs and decoration a medium for expression, modified, perhaps, to suit present-day materials and conditions.

ENGINEERS TO MEET

The Association of Western State Engineers will hold its first annual meeting in Salt Lake City, Utah, October 29-31. Delegates have been named from seventeen states, in most cases consisting of or including the state engineer, according to George M. Bacon, state engineer of Utah, who is acting-secretary of the organization. A two-day program of addresses has been aranged and a third day is to be devoted to visiting points of interest in the vicinity of Salt Lake. The states included are Arizona, California, Colorado, Idaho, Kansas, Montana and Nebraska.

Los Angeles Architectural Club

THE September meeting of the Los Angeles Architectural Club was held on the 18th, in the rooms of the Building Material Exhibit, Architects' building.

Burdett Moody, secretary of the Boulder Dam Association, spoke on the Boulder Canyon project and the All-American canal. He sketched briefly the history leading up to consideration by Congress of the Colorado River-Boulder Canyon project, sought to be authorized by the passage of the Swing-Johnson Bill. And then he discussed the various problems of the Lower Colorado River with the recommended relief made by the Reclamation Service, as to the construction of not only a dam, but a canal as well. The talk was followed by motion pictures of the canyon and river.

Prof. Walter S. Hertzog, director of the Los Angeles city schools, was the next speaker. His subject was "Art Collections in American Museums." Prof. Hertzog expressed the feeling that while a country's culture was indicated by its interest in and the extent of its art collections, we, the United States, have been more intent upon Empire building, and consequently have let culture slide. Our interest in art was developed rather late, with the result that we possess no outstandingly great art collections.

At the Heinsbergen housewarming wherein Mr. Heinsbergen, in paying his respects to the architects, Curlett and Beelman, for the very successful building they produced for him, paid a special and sincere compliment to Willard White, a co-worker of these architects, for his untiring efforts and personal work in the planning and construction of the building. As a mark of his appreciation, Mr. Heinsbergen presented Mr. White with a complete motion picture outfit.

ARCHITECTS LEAGUE OF HOLLYWOOD

The Architects League of Hollywood is getting under way with its accustomed pep and energy, having resumed its meetings, which were discontinued during the summer months.

At the meeting of September 12th, preliminary arrangements were started for the publication of the returns from the questionnaire which the Architects' League of Hollywood sent to all of the architects in the United States, making inquiries as to the cost of preparing plans and specifications for various types of buildings.

This activity has aroused a phenomenal amount of interest. Inquiries have come in from all countries of the English speaking world. Their corresponding secretary has been deluged with correspondence relative to this splendid and worthwhile activity, and indications are plentiful that the architectural profession throughout the United States, as well as the English speaking world, is eagerly awaiting the publication of the returns of this questionnaire with the greatest interest. It will give a composite of expert opinion as to what should constitute the cost of adequate plans and specifications on various types of buildings. This information will be priceless to any practising architect, by giving a standard of comparison by which he can judge the correctness of his costs of production. The publication of this cost data will help every architect to convince the most skeptical of clients as to what it costs to produce adequate architectural service—and what constitutes a reasonable fee.

* * *

Other activities of this progressive and far-seeing group of architects will be announced later. These promise to be of great benefit to the public as well as to the architects. The nature of these efforts will be announced later when they have become crystallized and assume more definite form.

It is, indeed, a fine thing to see a group of architects who are willing to so generously and unselfishly contribute their time to activities which are of such benefit to the public and to the profession as well.

* * *

The Architects' League of Hollywood seems to have a happy faculty of choosing and concentrating its efforts to the solution of certain pressing problems facing the architectural profession, which in the past have been largely overlooked. The two things to which this forward thinking group of architects have devoted their major efforts is first, the problem of publicity for the architect, and secondly, the very sensible and profitable effort of finding out what really are the production costs of the architect. If they never do anything further than publish the tabulated result of this nationwide questionnaire, then this progressive organization will have amply justified its existence and will have done a great and worthwhile work for the business and profession of architecture.—Kyson.

SOUTHERN CALIFORNIA CHAPTER

The September meeting of the Southern California Chapter, American Institute of Architects, was held at the Royal Palms Club, White's Point, San Pedro. Arrangements were made by Arthur L. Acker for the members to play golf during the afternoon and many availed themselves of the opportunity. President Pierpont Davis presided at the meeting, which was held following a barbecue dinner in the palm grove.

The members and guests who attended the meeting were: W. J. Dodd, Eugene Weston, J. D. Barrett, D. Hughes, Arthur Hutchason, Joe Weston, D. C. Allison, J. T. Zeller, R. C. Hubby, H. C. Johnson, Franz Herding, J. R. Case, Arthur L. Acker, A. S. Nibecker, Sumner M. Spaulding, A. C. Zimmerman, A. M. Edelman, Frank D. Hudson, Pierpont Davis, Burgo Purcell, A. W. Eager, H. L. Kirkman, R. C. Flewelling, Frederick Scholer, Edwin D. Martin, Nathan Coleman, Chas. F. Plummer and Myron Hunt.

WASHINGTON STATE CHAPTER

The regular meetings of Washington State Chapter were resumed at Seattle, October 4th. At that meeting George Gove gave an interesting account of his recent six months' architectural tour in Europe.

The Golf Tournament ended with Holmes and Schack competing for final honors. The prizes were awarded at the regular Chapter meeting in October.

The Chapter Committee, working with W. J. Howard of the Pacific Northwest Brick and Tile Association on the exhibition of German brick architecture, consisted of Messrs. Vogel, Chairman; Aitken, Alden, Borhek and Torbitt. The exhibition is now in San Francisco.

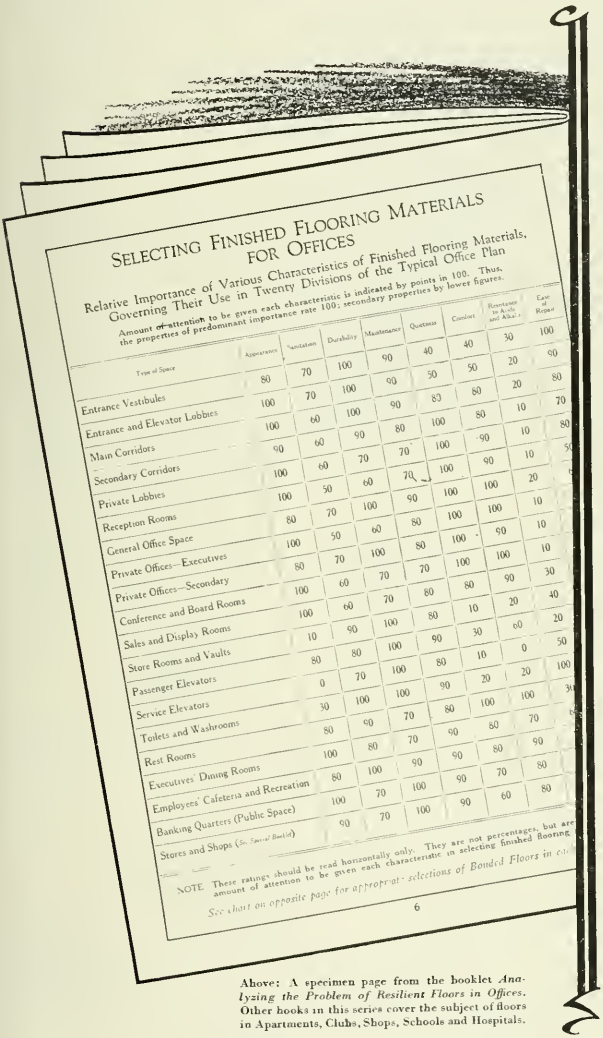
J. deForest Griffin, Chapter member from Chehalis, has definitely succumbed to the attraction of movieland and is now located at 222 Northwestern Avenue, Hollywood, care of the Bebe Daniels Corporation. His practice in Chehalis is taken over by Fred G. Rounds, formerly Associate Professor of Architecture, State College of Washington.

* * *

Members of the Seattle City Planning Commission and of the City Planning Committee of the Chapter, with others actively interested in city planning work, had the opportunity of meeting at luncheon with Mr. Bartholomew, City Plan Engineer, July 31, on another of his trips through Seattle, occasioned by his work in other cities on the coast. Mr. Bartholomew kindly consented to stop over in Seattle for this meeting. A luncheon was held at Blanc's Cafe and in addition to the members of the Planning Commission and of the Chapter, there were present members of the City Council, the entire membership of the new Park Board and others connected with civic activities.

RESILIENT FLOORS

IN MODERN OFFICES—



SELECTING FINISHED FLOORING MATERIALS FOR OFFICES

Relative Importance of Various Characteristics of Finished Flooring Materials, Governing Their Use in Twenty Divisions of the Typical Office Plan

Amount of attention to be given each characteristic is indicated by points in 100. Thus, the properties of predominant importance rate 100; secondary properties by lower figures.

Type of Space	Appearance	Sanitation	Durability	Maintenance	Quietness	Comfort	Resistance to Acids and Alkali	Ease of Repair
Entrance Vestibules	80	70	100	90	40	40	30	100
Entrance and Elevator Lobbies	100	70	100	90	50	50	20	90
Main Corridors	100	60	100	90	80	80	20	80
Secondary Corridors	90	60	90	80	100	80	10	70
Private Lobbies	100	60	70	70	100	90	10	80
Reception Rooms	100	50	60	70	100	90	10	50
General Office Space	80	70	100	90	100	100	20	
Private Offices—Executives	100	50	60	80	100	100	10	
Private Offices—Secondary	80	70	100	80	100	90	10	
Conference and Board Rooms	100	60	70	70	100	100	10	
Sales and Display Rooms	100	60	70	80	80	90	30	
Store Rooms and Vaults	10	90	100	80	10	20	40	
Passenger Elevators	80	80	100	90	30	60	20	
Service Elevators	0	70	100	80	10	0	50	
Toilets and Washrooms	30	100	100	90	20	20	100	
Rest Rooms	80	90	70	80	100	100	30	
Executives Dining Rooms	100	80	70	90	80	70	60	
Employees' Cafeteria and Recreation	80	100	90	90	80	90		
Banking Quarters (Public Space)	100	70	100	90	70	80		
Stores and Shops (Ex. General Retail)	90	70	100	90	60	80		

NOTE These ratings should be read horizontally only. They are not percentages, but are amount of attention to be given each characteristic in selecting finished flooring.

See chart on opposite page for appropriate selections of Bonded Floors in each

6

Above: A specimen page from the booklet *Analyzing the Problem of Resilient Floors in Offices.* Other books in this series cover the subject of floors in Apartments, Clubs, Shops, Schools and Hospitals.

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ARCHITECTS' CONVENTION

[Continued from Page 103]

Let us consider for a moment the problem that faces us today in the planning of a home. Economic changes resulting in the increased cost of materials as well as the increased cost of maintaining labor and servants, have forced upon us economic changes in the size of our homes and the small home of today has become small indeed. This means that it should be compact, economic in its distribution of space, and economic in its use of materials; but withal it should be livable, convenient, simple in form and detail, and should have such character as to make it acceptable to both its occupants and the community at large.

In the design of our homes we have borrowed from the French, English, Italian and Spanish. A study of the English cottage, the small French, Italian and Spanish house, the New England Colonial house, the Pennsylvania farm house, and the Early California house shows the utmost of simplicity in character, form, detail and construction. If we will analyze the best examples of these types we will see that it is this very simplicity which causes us to admire them.

The causes prompting these early people to develop these simple types of homes were a result of economic and social conditions. They were simple and modest people, yet they had appreciation for the livable qualities of a home. They had little skilled labor; they had to pay attention to economic considerations; and in most cases had to build their homes as quickly as possible. These causes resulted in their simple, modest and unassuming houses which by virtue of those qualities, are as beautiful and charming today as when they were built.

And so, if we, today, will take a lesson from them, be prompted by the same considerations as they, make economy a matter of simplicity of form and detail rather than the use of poor materials and outrageous construction, then we will build homes that will "live" instead of being "out of date" within a few years.

The successful designer of homes has learned this. Simplicity in plan, detail and construction; modesty and restraint in the use of ornamentation and embellishment; all of which make for greater economy and character; are, or should be, part of the architect's training.

But has the "Jerry-Builder" or the "Designer-Builder" the ability or background of training to quality him to meet this problem? Is he not, almost universally, building the most vulgar, elaborate, ornate, uneconomically planned houses, and keeping the cost down by flimsy and dishonest construction?

I think that right here the architects' objection to the designer-builder should be clearly stated. The architect does not object to the designer-builder, as such. He objects to them as a class, because, as a class, they are totally unqualified to do the job they are pitifully attempting to do.

There is no class of men in public life who are more interested in their work, or have a greater desire to give satisfactory service than the architects. As a class they love their work, they are self-sacrificing, studious, hardworking, desirous of giving the utmost in service and satisfaction, and they work religiously to obtain buildings which will be as beautiful and well constructed as their ability will permit. Almost unquestionably they will waive the matter of expense of production where that becomes necessary to obtain justifiable results.

Contrast this, then, with the class of builders, designers, real estate organizations and others who are attempting to do the work of the architect. In the first place they are purely commercial in their organization and in their motives. Their object is too often, not a question of how well they can plan and design a building, but rather how quickly and economically they can do it for the fee involved, which in most cases is entirely inadequate. They are seldom qualified by education, training or experience to handle the problem of plan, design or construction, and they have little comprehension of the necessity or advantage of study and research. Their method is either a feeble and pathetic attempt to copy successful examples of the architect's work or an attempt to create something unusual, the result of which is hideous in mass and color, outrageous in construction, wasteful of labor, materials and space; a defiance of all the principles of good planning, correct design, propriety, dignity, sobriety and liveableness; and above all, completely out of harmony with its environment, and a disastrous depreciation of surrounding property values. * * *

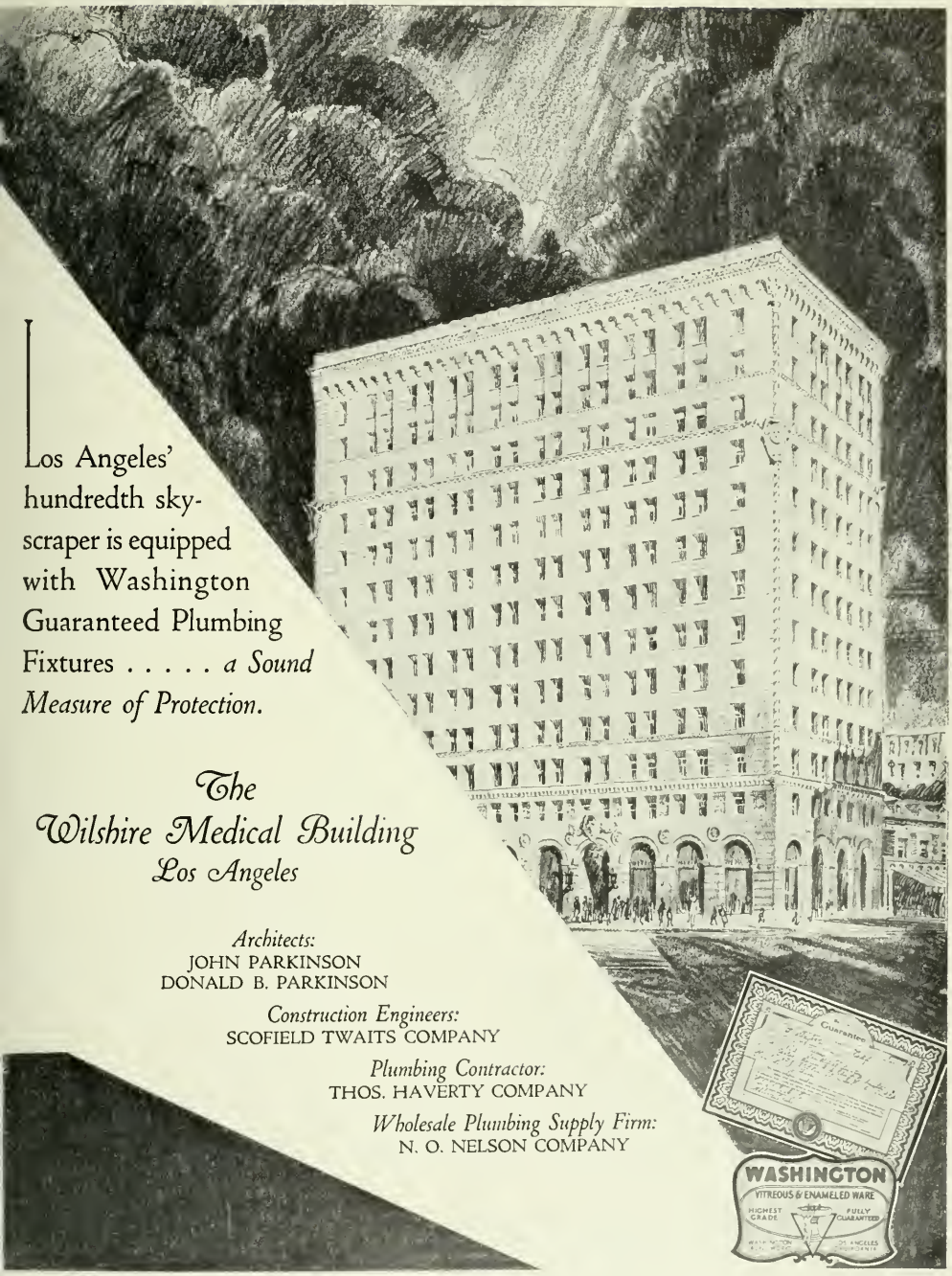
The architect has learned what it costs to plan and supervise the construction of different types of buildings, and when the designer and builder, real estate builders or others undercut that fee by sixty or eighty per cent the architect knows that they cannot give adequate service; in fact they have no comprehension of what adequate architectural service is.

The big difficulty is that the public, in the mass, is undiscriminating and unable to distinguish good service or good construction from bad, until it is too late. Most people are inclined to place architectural service entirely on a basis of price without the realization that they are penny-wise and pound-foolish.

I have an intimate knowledge of many cases where a designer-builder was chosen in preference to an architect because he agreed to perform the service for a ridiculously low fee, or for no fee at all—presenting the anomalous offer of "Free Plans."

A study of the completed work shows a result not only impotent and nondescript in character, but extravagant in purposeless ornamentation, poorly constructed, poorly planned, wasteful of materials, labor and floor space, adding not only to the initial cost, but greatly multiplying the servant problem or cost of maintenance. These added costs would have paid a good architect's fee several times over.

Then there is the question of the value of the building as an asset. The National Association of Realty Boards in its recommendations to prospective home builders advices the selection of an architect, stating "A good architect is worth his weight in gold."



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LEONARD HAS HIGH RATING

John B. Leonard, C. E., rated highest in the civil service examination for the position of superintendent of the bureau of building inspection of the San Francisco Board of Public Works. Leonard's rating was 92.4, as compared with that of 82.673 by Leon H. Nishkian, the only one of seven other candidates for the position to qualify.

The examination was conducted by a special board composed of Professor C. B. Wing of Stanford University, Professor Charles Derleth, Jr., University of California, and George W. Kelham, architect, of San Francisco.

EIGHT STORY HOSPITAL

Plans are being completed by Claud Beelman, 1018 Union Bank building, Los Angeles, for an eight story Class A hospital for the Kaspare Kohn Hospital Association, estimated to cost $1,500,000. The building will have accommodations for two hundred and fifty patients. It will be located on Fountain avenue, near Catalina avenue, Los Angeles.

PASSING OF J. C. HLADIK

John Carl Hladik, 62, with offices in the Monadnock building, San Francisco, died in Guerneville, Sonoma County, while enjoying his vacation. Mr. Hladik was born in Prague, Bohemia, and came to San Francisco when a young man, engaging in the practice of architecture. He specialized in apartment house design.

THREE FRAME APARTMENTS

Plans have been completed by S. Heiman, 57 Post street, San Francisco, for three frame apartment buildings to be built by Arthur J. Falvey, 369 Bush street, on the southeast corner of Page and Stanyan streets, San Francisco, at a total cost of $135,000. The owner will have charge of construction.

$1,000,000 HOTEL

A twenty story hotel, to cost $1,000,000, will be erected in Seattle by T. Harry Gowman, owner of the Gowman Hotel of that city, according to plans recently announced. The site of the proposed structure is on Times Square, opposite the new Orpheum Theater. The hotel will contain 450 guest rooms.

BOOK STACKS TO BE WELDED

Fifteen miles of steel columns will be electrically welded together to form the book stacks of the $7,000,000 Sterling Memorial Library being built by Yale University at New Haven, according to G. D. Fish of the Westinghouse Company, who is consulting engineer on welding for the book stack contractor.

SUNSET ENJOYS PROSPERITY

The Sunset Lumber Company of Oakland has made a number of important changes in its executive staff as well as improvements to its mill and yards. Gerald G. Pearce is the new manager and since taking hold the company's business in the East Bay section has materially increased.

Recent orders include 1,500,000 feet of lumber for the new Capwell department store building; 500,000 feet for the Bowles dormitory, University of California; 800,000 feet for the East Oakland High School building and 350,000 feet for the Women's City Club building, Oakland.

A new office building of rustic construction is being built and the capacity of the dry kilns has been doubled. A new crane has also been added which, with added yard room, gives the company splendid facilities for handling the increased business.

THEATER CONTRACT AWARDED

Weeks and Day, Financial Center building, San Francisco, have awarded a contract to the Simpson Construction Company of Los Angeles to build a Class A theater and store building in San Diego for Gildred Brothers at an approximate cost of $750,000. The theater will seat 3300 and has been leased by the West Coast Theaters Company.

OAKLAND OFFICE BUILDING

Plans have been prepared by Messrs. Reed & Corlett of Oakland for a fifteen-story Class "A" store and office building to be erected on the southwest corner of Fourteenth and Franklin Streets, Oakland, for the Franklin Land Company. Construction will be handled by the Dinwiddie Construction Company. The building is estimated to cost $600,000.

MAUSOLEUM AND CHAPEL

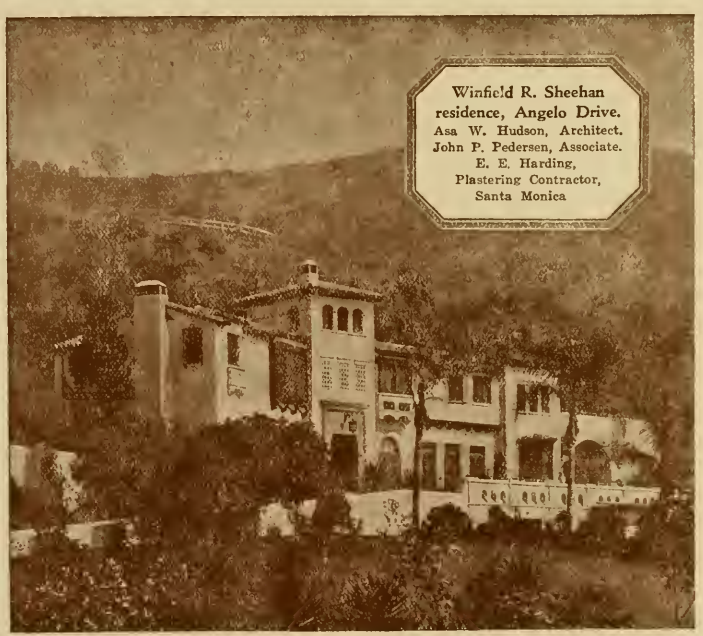
The Roman Catholic Archbishop of Los Angeles and San Diego county is given as the owner of a Class A mausoleum and chapel to be built in Calvary Cemetery on Whittier Boulevard, Los Angeles. The architect is Ross Montgomery, Chamber of Commerce building, Los Angeles.

LOS ANGELES CHURCH

Messrs. Allison and Allison, Hibernian building, Los Angeles, have been commissioned to prepare plans for a Class A church and religious educational building at 6th street and Commonwealth avenue, Los Angeles, for the First Congregational Society. The improvements will cost $750,000.

The ARCHITECT AND ENGINEER

NOVEMBER
1928



Winfield R. Sheehan residence, Angelo Drive.
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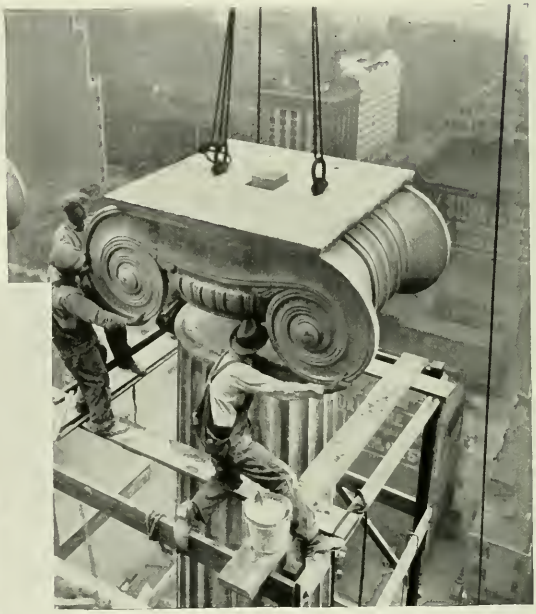

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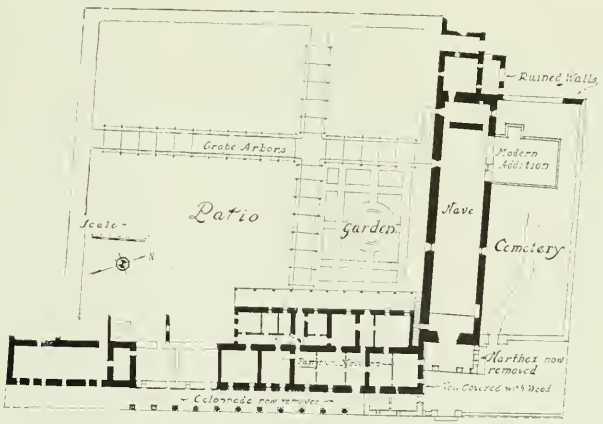
By Henry Chapman Ford

No. 10—Mission San Luis, Obispo de Tolosa

The Mission of San Luis, Obispo de Tolosa (Saint Louis, Bishop of Toulouse) was founded September first, 1772, at the time when Padre Junipero was en route to San Diego to hasten the supplies from Mexico which lay aboard the transports there. The first building to be constructed was a small chapel and later this was augmented with a house for the priest, Father Cavaller, barracks for the escolta and a stockade for defense. The buildings were considerably damaged in 1776 when the settlement was attacked by wild Indians. Soon after the roofs were replaced with burned clay tile which was the first roofing tile made in California. This was in 1790. This modest start of clay tile is said to have had an important bearing on the present-day architecture in California. The buildings, true to California tradition, were disposed around a patio. Since its completion in 1793 the church has suffered in various ways. The belfry tower was badly damaged by earthquake and has been entirely removed, the three bells being placed in an old wooden tower nearby. The interior of the church is sorely in need of repairs to restore it to its original form.



MISSION SAN LUIS, OBISPO DE TOLOSA, CALIFORNIA
FROM AN ETCHING BY HENRY CHAPMAN FORD

The
ARCHITECT
AND ENGINEER

VOLUME XCV NOVEMBER, 1928 NUMBER TWO

The SIR FRANCIS DRAKE HOTEL

SAN FRANCISCO

By: W. P. Day, M. Am. Soc. C.E.

CONSIDERATION of the general term, *obsolescence*, inevitably comes to every hotel owner. When the owners of the Sir Francis Drake Hotel selected a site in a rapidly-growing business and retail district, the southeast corner of Sutter and Powell streets, in the city of San Francisco, there was proof of one phase of obsolescence reduced to a minimum. Centers of industrial and commercial activity gradually but regularly change, and a new hotel can retain its profitable operation only by introducing in the original construction the newest features, as well as materials of superior quality. The architects were instructed accordingly and, as a result thereof, the building is constructed of exceptionally good materials, with well-planned and equipped kitchens, unusual features in guest rooms, and a mechanical equipment system that is excelled by no hotel building west of Chicago.

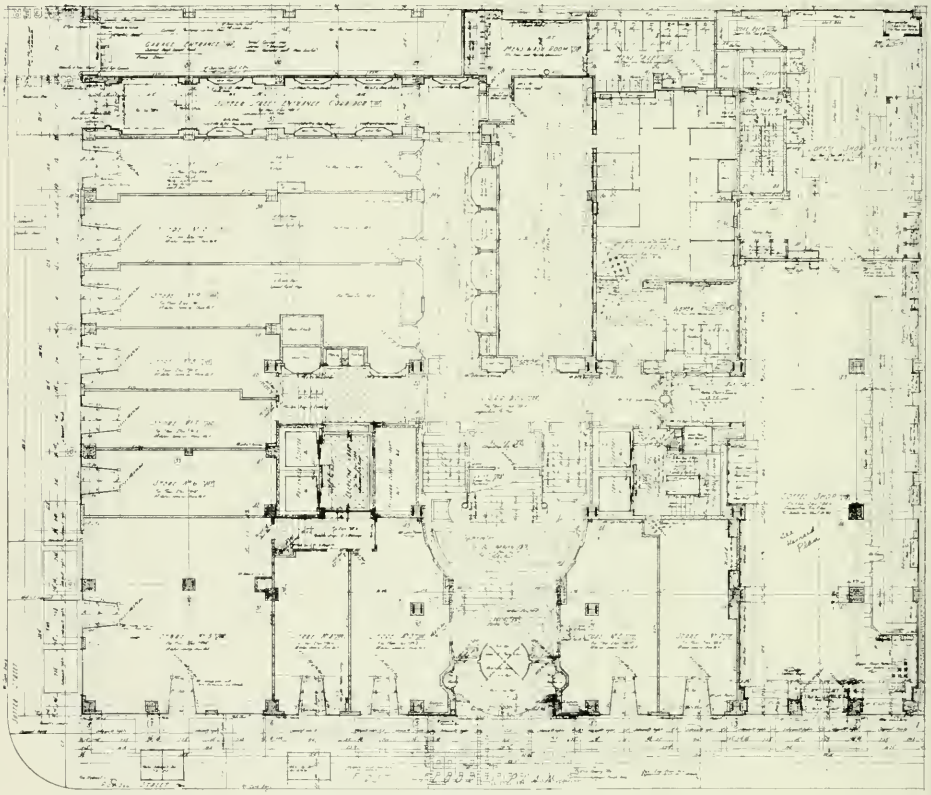
SIR FRANCIS DRAKE HOTEL AT NIGHT
Philip Little, Del.

The problem was unusual, in that the hotel fronts on two important retail streets, and in order to make a proper return on the investment, it became necessary to utilize store frontage to the maximum degree. Primarily for this reason, the lobby was located above the level of the Powell street entrance, and the dining room and the lounge, fronting on Sutter and on Powell streets, respectively, were raised above the level of the lobby in order to provide sufficient height for stores on the two streets.

The exterior of the building is Italian in character, of late Gothic influence, simple in mass, residential in spirit. The lower stories are of light pink Tennessee marble, with ornamental iron and bronze trim for the stores. The upper stories, making a total of twenty-three,

are of brick and terra cotta, crowned with a roof of tile. From the main entrance on Powell street, a grand stairway leads up to the lobby and down to the shop corridor. The wall of the lobby, opposite the grand stairway, bears three huge mirrors which reflect the lounge located over the stores and entrance on Powell street. Adjoining the mirrors are two fine murals, depicting the history of Sir Francis Drake. At the east end of the lobby are located the hotel office, cigar stand, telephones and telegraph. The colorful marble floor of the lobby is partly covered with a beautiful Austrian rug, on which is set selected furnishings whose colors reflect on the stone walls.

From the north end of the lobby, a few steps lead to the main dining room, which has a small dining room at either end. The ceiling of the main dining room is wood, inlaid with colors of gold, vermillion and soft blues. The woodwork on the walls is painted a light Peacock blue, glazed with greens. The panels are covered with a green and gold damask.



GROUND FLOOR PLAN, SIR FRANCIS DRAKE HOTEL, SAN FRANCISCO
Weeks & Day, Architects and Engineers

The lounge is reached by continuation of the grand stairway from the lobby. The walls are of mahogany with an ornamental gold ceiling decorated in mellow shades of red, blue and deep green.

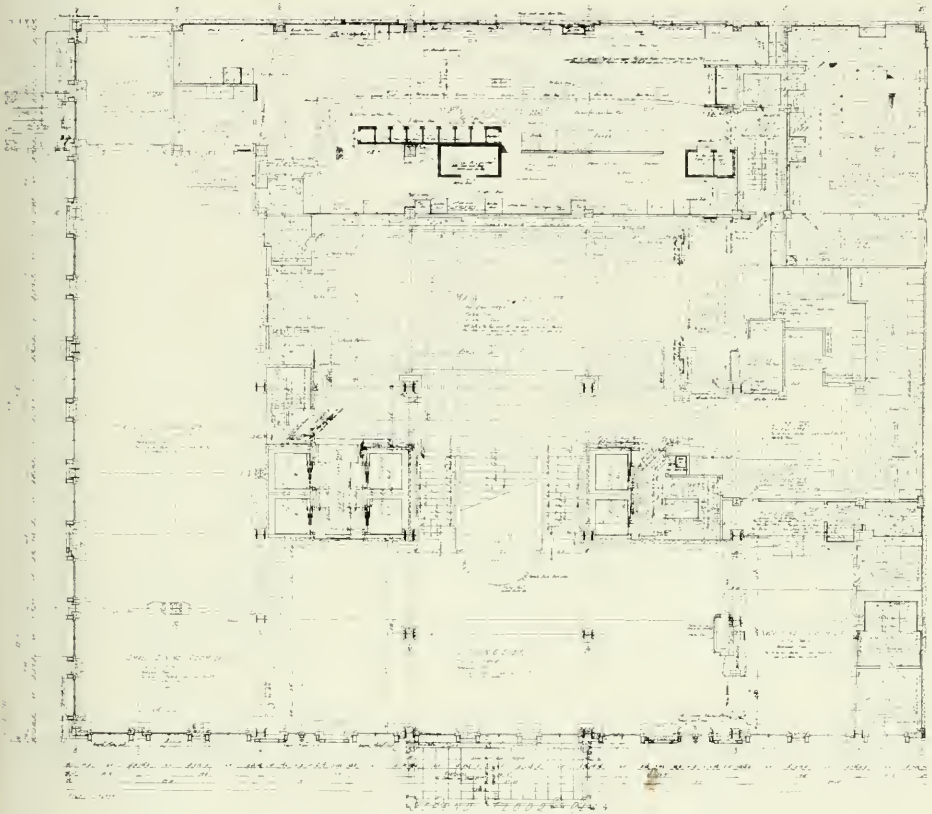
The writing room is located just south of the lounge. The walls are panelled mahog-

any and the vaulted ceiling is decorated with gold and picked out in blue, red and black on an ivory background. From the writing room a carved opening of limestone opens into a corridor leading to the banquet hall, the walls of which are a soft tan and the ceiling of which is wood, decorated with gold, emerald green, Italian reds and Florentine blue.

On the first floor are located stores, beauty parlor, barber shop, coffee shop and the corridor leading from the Sutter street entrance to the Powell street entrance. The garage is below this floor with entrance on an incline from Sutter street.

The coffee shop is oriental in character, with a wood wainscot carrying around the entire room, broken up with African marble pilasters. The counter and back bar are set up in colorful tile.

The third floor has been set aside for private dining rooms, sample rooms, and executive offices. Rooms on the typical floor have been arranged in various sizes, to permit of wide variations in rates. Some of the rooms have walls of paper, some of canvas, and some of a washable wall covering, with colors selected to suit the various exposures of the rooms. The woodwork is finished dark and blends with the wall covering. Each guest room is equipped with a servidor which



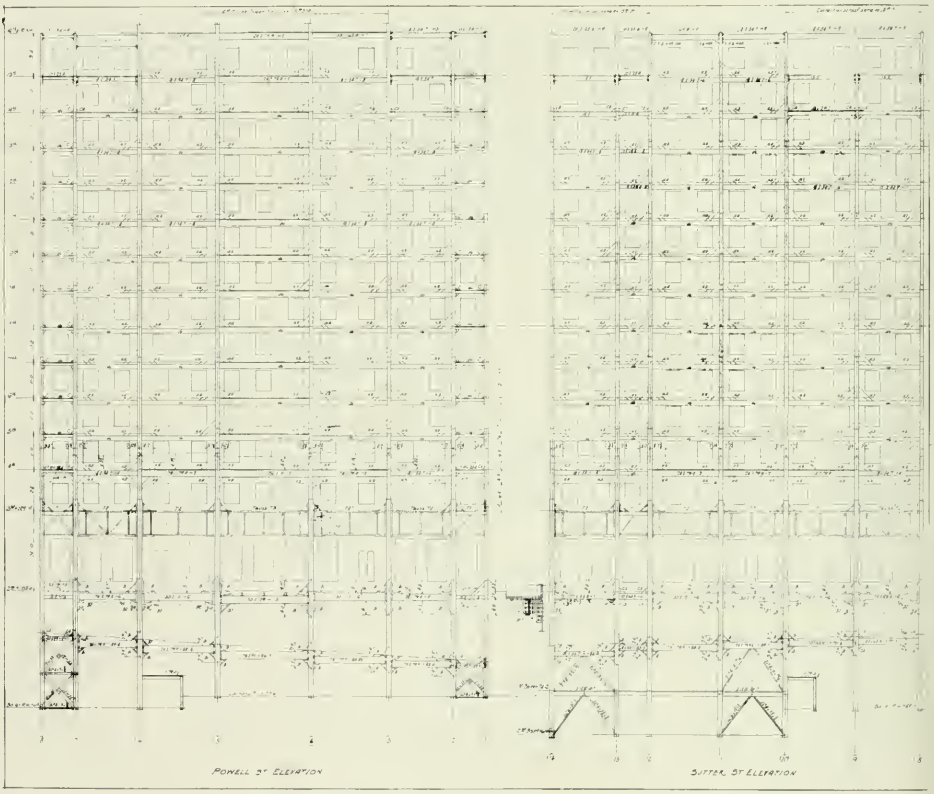
SECOND FLOOR PLAN, SIR FRANCIS DRAKE HOTEL, SAN FRANCISCO
Weeks & Day, Architects and Engineers

eliminates the bell-boy intrusion and insures up-to-the-minute service.

The kitchens are located to service the dining rooms, coffee shop and banquet hall in as direct a way as possible. The main kitchen is located adjacent to the main dining room. A feature worthy of comment in connection with the ranges in the main kitchen is the use of a glass hood with a skylight above, which throws direct light to the top of the ranges. Soiled dishes are conveyed on an automatic conveyor from the dining room to the central dish-washing unit, located beyond the kitchen.

* * *

Problems connected with the structural design of the building were not unusual but were of interest to the structural engineer. Before proceeding with the foundation design, test borings were made in order to determine the formation under the foundation bed. Boring was projected successively through yellow sand, soft black clay, solid yellow sand, hard brown sandy clay, to a stony sand and clay, at a point 65′ below grade, at which seepage water was first noticed. The penetration proceeded through sand and brown and blue clay to cemented blue clay and stones at an elevation 133′ below grade, and to serpentine rock 134′ below grade. Water stood in the holes at a level 87′ below grade.



WIND BRACING DIAGRAM OF OUTSIDE WALLS, SIR FRANCIS DRAKE HOTEL
Weeks & Day, Architects and Engineers

Foundation design offered no particular difficulties, being in general of the usual square footing type. Owing to the excessive weight of the boilers and the necessity of maintaining their level undisturbed, however, it was thought advisable to use concrete piles for the area so covered. These piles were cast in place in holes prepared therefor, and the weight of the boilers has produced no appreciable settlement.

The steel frame was designed in the customary manner, except that, in computing wind stresses, lateral forces were arbitrarily raised 33 1/3% over and above the requirements of the city ordinance. An effort was made to increase the lateral forces 66 2/3% above the ordinance, but it was found that this assumption produced gussets and knees so heavy as to interfere with the architectural treatment, and the original 33 1/3% advance was adhered to. Where possible, wind stresses were taken care of by diagonal panel bracing, knees and gussets being used only where the architectural limitations demanded them.

Brick walls were anchored to columns by the use of steel yokes, about four per column per story, and to spandrel beams by the customary steel dowels.

Concrete was mixed at a central plant and delivered to the job in trucks. Specialists on concrete technology were regularly employed at the mixing plant to accurately measure the cement, sand and coarse aggregate and to maintain the proper water-cement ratio, consistent with the desired concrete strength. In addition to this, a further check on the quality of the concrete was made by periodically taking samples as it was deposited in place, curing the cylinders in the usual way, and testing thereafter. This method of procedure gave an assurance of good concrete, reasonably uniform in strength, in addition to which considerable space was saved for other necessary building operations. In condensed localities, such as important street corners, the matter of space is an item of concern.

* * *

The mechanical equipment, by reason of choice of materials and apparatus, puts the structure in a class by itself, insofar as hotels in the West are concerned. The boiler plant and its auxiliary equipment are located in the second basement, under the Sutter and Powell streets corner of the building, and extend under the sidewalks of both streets. In this space are installed two water tube boilers, each having 1370 square feet of heating surface. Each boiler is in a single setting, although one of them is designed as a half battery, and space is provided adjacent to it for the installation of a future third boiler. The boilers are oil fired, with steam atomizing oil burners, and will be operated at approximately 100 pounds pressure for use in the flat work ironer, presses, etc., of the laundry. A reduced pressure, approximately 35 pounds, is used in the kitchen. Exhaust steam from fan engines, pumps and ice machine, from atmospheric pressure to 5 pounds, is used in the heating system and for heating the water. When steam from these sources is insufficient, additional steam is fed to the low pressure mains from the main high pressure header through automatic reducing pressure valves.

The house heating system is a low pressure two-pipe vacuum system. Steam is taken to the top of the building in a main riser and distributed to risers by mains in the top of the tower at the twenty-third floor, and also by mains over the fifteenth floor ceiling for that portion of the building which is not under the tower. Instead of the usual rotary or reciprocating pumps, vacuum is maintained by steam jet pumps, noiseless and practically indestructible. Provision has been made for approximately 14,000 square feet of radiation.

All of the main public rooms are mechanically ventilated by both fresh air and exhaust systems. Fresh air is passed through filters and brought to the proper temperature for the comfort of guests before being delivered to the rooms, the temperature of which is automatically controlled by thermostats. Interior service portions of the building, such as the laundry, kitchen, boiler room, bakery and dish-washing rooms, are ventilated by the same method

PRELIMINARY STUDIES, SIR FRANCIS DRAKE HOTEL

WEEKS & DAY, ARCHITECTS AND ENGINEERS

but are on separate fan systems. Interior bathrooms are connected to a large exhaust fan which is located just under the tower roof. The main kitchen exhaust fan is also located here to vent the kitchen and its auxiliaries above a point where the odors of cooking may get into the building.

The building is supplied with water from the Spring Valley system. Water is passed through filters and softened in Zeolite softeners. For the lower floors, it is fed directly from the pressure in the Spring Valley mains and for service from the third floor up, it is pumped to storage tanks close under the tower roof.

The main storage tanks supply a hot water deærator having a reserve storage of hot deærated water, located on the twenty-third floor. This equipment not only heats the water but also removes entrained and dissolved oxygen and other corrosive gases from it. It eliminates the possibility of drawing milky, rusty or muddy water from the hot water faucets. It is believed that the deærator installed for the hot water in the building is the first one in use in the West for hotel purposes, although a deærating feed water heater has been used in a few commercial buildings. The feed water heater designed to meet the particular needs of this installation heats the feed water to approximately 225 degrees F. and removes oxygen in the same manner as is done by the apparatus for the general hot water supply.

NORTHWEST CORNER OF LOUNGE, SIR FRANCIS DRAKE HOTEL
Weeks & Day, Architects and Engineers

* * *

Careful attention was given to the selection of plumbing fixtures and the necessary

piping therefor in an effort to correct the usual operating troubles incident to this part of the work. The water supplied from the roof tanks is carried down through a system of piping in which pressure reducing valves are so placed that each three floors are under one control and the pressure is maintained practically the same throughout the structure. This precludes the possibility of excessive pressure and its attendant noise in bathrooms. In addition, utility space for piping was carefully insulated and the vent ducts from each bathroom were lined with hair felt.

Each bathtub is fitted with a pop-up waste, instead of the usual beaded chain, and is connected with an extra large waste and overflow. It is impossible for water to overflow on the floor, even though all faucets are wide open and running continuously. The tubs are finished with acid-resisting enamel and the brass is chromium plated.

In addition to the deærator for pipe protection mentioned heretofore, all of the water piping was made of extra heavy wrought iron pipe and extra heavy soil pipe and fittings for waste and vents were used. It is thought that the combination of the deærator and the extra heavy pipe will make this part of the work perfectly good for the life of the building.

MAIN DINING ROOM, SIR FRANCIS DRAKE HOTEL, SAN FRANCISCO
Weeks & Day, Architects and Engineers

There were approximately 71 tons of sheet metal work, 127,000 feet of pipe, 1765 plumbing fixtures, 12 tons of caulking lead and 116,000 pieces of pipe fittings involved in the heating, ventilating and plumbing work.

The lighting and power service is sup-

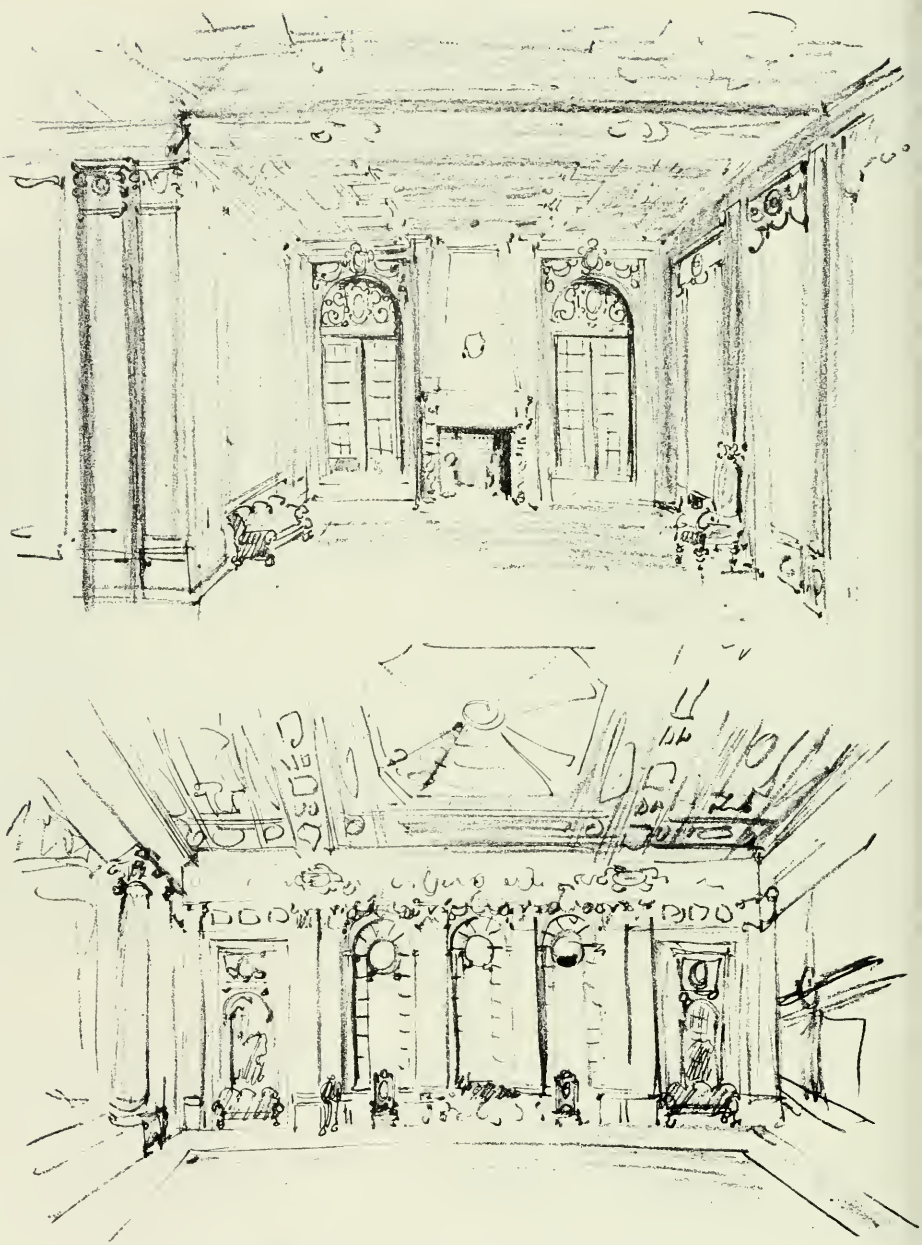
plied from the lines of the Pacific Gas and Electric Company through transformers located in a vault under the Sutter street sidewalk. From the secondary side of the transformer, service lines are run in conduit to the main switchboard, located on a gallery above the first basement level. There are three single phase alternating current services for general lighting, one single phase service for emergency lighting, and one three-phase service at 220 volts for all power, except for the ventilating fans and other equipment requiring speed variation and quiet operation. These latter are operated by direct current motors and are supplied by a separate service at 220 volts.

The main switchboard is approximately 20′ in length and accommodates the measuring devices of the power company, together with meters for stores and other sections of the building. Riser and feeder lines are extended from the main switchboard to sub-power panels and lighting distribution centers on the several floors.

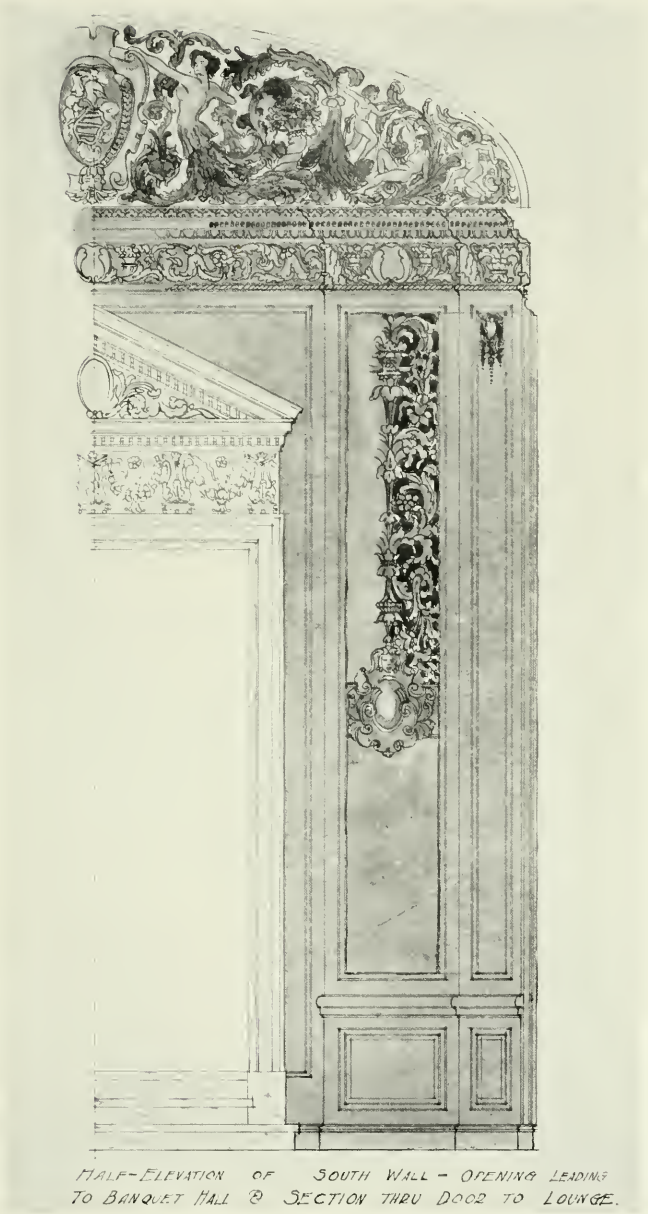
The laundry machines are motor driven and are automatically controlled at the switchboard in the laundry, machines being automatically reversed by devices on the board. Many devices in the kitchen, such as vegetable preparing machines, dough mixers, ice cream freezers, dish-washers, grinders, silver-polishers, etc., are electrically driven. The heating elements in the two bake ovens are electric, giving perfect control with an even temperature.

The time recording stamps in offices and receiving department, employees' time recording instruments, together with clocks,

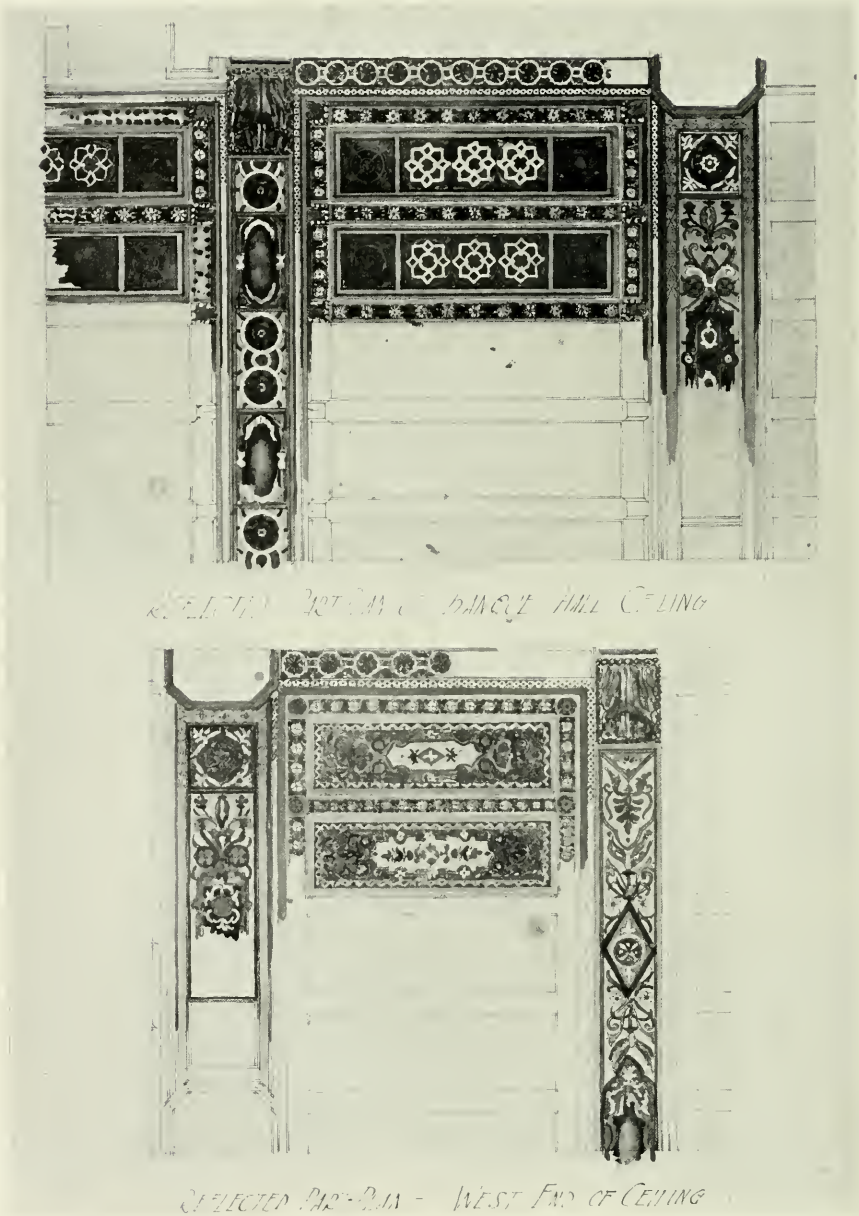
GUEST ROOM, SIR FRANCIS DRAKE HOTEL, SAN FRANCISCO
Weeks & Day, Architects and Engineers



STUDIES, LOUNGE AND LOBBY, SIR FRANCIS DRAKE HOTEL
WEEKS & DAY, ARCHITECTS AND ENGINEERS



COLOR STUDY FOR INTERIOR DECORATION, SIR FRANCIS DRAKE HOTEL
WEEKS & DAY, ARCHITECTS AND ENGINEERS



COLOR STUDY FOR INTERIOR DECORATION, SIR FRANCIS DRAKE HOTEL
WEEKS & DAY, ARCHITECTS AND ENGINEERS

are full electric, with the time movement motor driven in each. The motors are alternating current and are synchronized with the cycles of the lighting current. The cycles of the current are kept constant in the service company's power station by Telechron regulators.

The telephone system in the building is that of the Pacific States Telephone Company. There are two telephone switchboards, one near the booking desk, for general public use on outside lines and long distance service, and one on the mezzanine, for house service and outside calls for guests and service department.

It is thought that the Sir Francis Drake Hotel is the first of its type to install complete radio service to rooms. Music, speeches, etc., from the main lobby, lounge, banquet room and dining room may be transmitted to all rooms and the guest is enabled to receive radio from any one of the local outside stations as well. It is possible for the guest in his room to have either the ordinary headset for listening in or the loud speaker. The room receiving instruments are portable, and connections are made through plugging in jacks conveniently located.

The refrigerating work includes a complete refrigerating plant, a chilled drinking water system and cold storage rooms. The plant is of the ammonia compression type designed to freeze two tons of clear raw water ice daily. It is required also to cool 100 gallons of drinking water per hour from 70 degrees to 40 degrees F., and to maintain low temperatures in the several cold storage rooms.

SIR FRANCIS DRAKE HOTEL ELEVATOR EQUIPMENT

THE elevator equipment in the Hotel Sir Francis Drake consists of four Spencer-Westinghouse variable voltage gearless traction passenger elevators, two variable voltage gearless electric service elevators, one small full automatic electric service elevator and one sidewalk elevator of the hydro-electric type.

The four main elevators are designed for a capacity of 2000 pounds at a car speed of 600 feet per minute, having a maximum traveling distance of twenty-three stories or a total of approximately 260 feet.

The two passenger-freight lifts have a capacity of 2000 pounds and are traveling at a car speed of 400 feet per minute, serving twenty-five landings, a total of approximately 290 feet.

The small full automatic electric service elevator also carries a load of 2000 pounds at 125 feet per minute, serving the second basement, the bakery on the third floor, and all intermediate landings, a traveling distance of approximately 60 feet.

The sidewalk elevator travels from the second basement to the top of the sidewalk and was designed to lift a load of 1000 pounds.

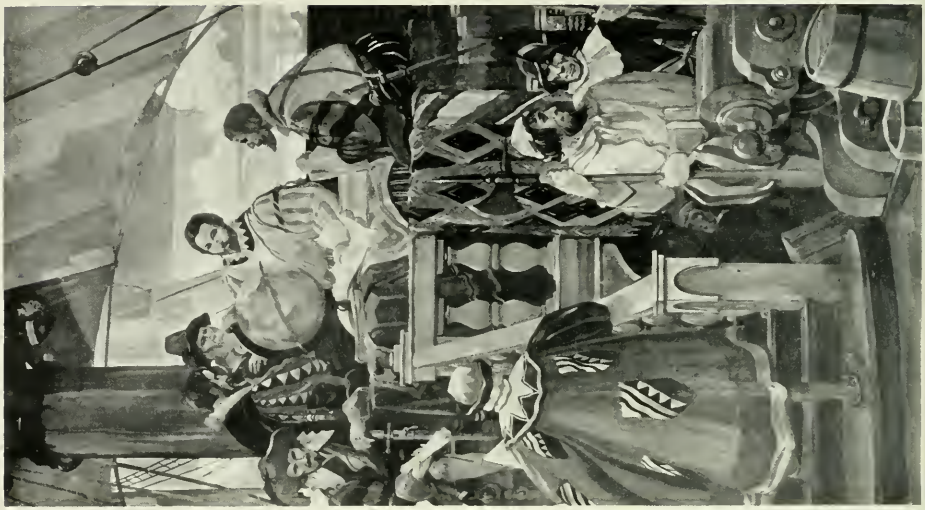
The elevators are equipped with every conceivable safety device and appliance required by the safety orders of the Industrial Accident Commission of the State of California and dictated by best elevator practice, such as, speed governor, car holding safety device, pit bumpers of either the oil or spring type, cable compensation, self-acting guide lubricators for cars and counterweights and numerous other valuable safety devices.

The elevator machinery proper is located in adequate machine rooms directly above the hatchways, the machines being mounted on either concrete slabs or felt foundations to minimize the transmission of sound from the machine rooms to other parts of the building.

While the elevator machinery is all located in the overhead the motor generator sets for the four main elevators and the two high speed service variable voltage elevators are located on the floor of the second basement in a place where it will be easily accessible at all times.

As mentioned in the foregoing the four main elevators and the two high speed service elevators are of the variable voltage type. [Turn to Page 50]

EDITOR'S NOTE—Other illustrations and plans of Sir Francis Drake Hotel in Plate Section, pages 67 to 98.



MY EUROPEAN IMPRESSIONS

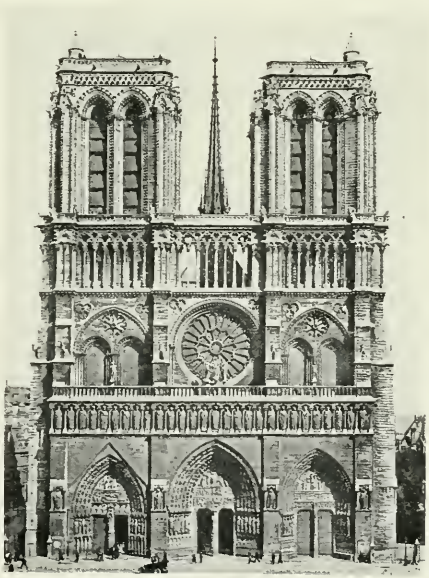
By
C O Clausen Architect San Francisco

IX. NOTRE DAME CATHEDRAL

THE first stone of this vast edifice was laid in 1163, and it took nearly one hundred years to complete the building. Here you behold one of the oldest of the French cathedrals, and the west front, shown in the illustration, is undoubtedly the grandest Gothic composition in France and truly is a "Poem in Stone."

This church was built during the transition from the Roman to the Gothic style, and it is interesting to note how the building was originally started in the classic style and then suddenly changed to Gothic. This is evidenced by the round columns in the nave with Roman capitals designed to carry round arches, but now supporting the pointed arch of the Gothic, which was employed from this level upwards and used in the remainder of the structure.

In the west front there is a certain peculiar quality expressed to avoid the cold balance of symmetry. At first sight the side portals seem identical, but upon close examination we find that the left door does not resemble the door on the right. Furthermore, we notice that the north tower (that on the left) is sensibly wider than the south tower, and the tracery on the grand gallery on the left is more masculine and compact than that on the other end.



WEST FRONT, NOTRE DAME CATHEDRAL

During the French Revolution the building suffered considerably at the hands of the mobs, who destroyed the religious furnishings, pulled down the bells from the towers and even went so far as to desecrate the tombs beneath the floors, removing the bodies and melting the leaden coffins into bullets. Soon afterwards, however, restorations were made and the most magnificent scene ever witnessed in the church took place when Napoleon and Josephine were crowned sovereigns of France.

Before visiting this place I advise the traveler to read Victor Hugo's great work, "Notre Dame"; then climb the two hundred and ninety-seven steps in the north tower and see the gargoyles, chimeras, strange birds and beasts carved in stone, which are prototypes of Gothic ornament. While standing up there you get a marvellous view of Paris and see the Seine river winding its way thru the city, spanned by numerous beautiful bridges, and how it divides and forms the island upon which the great cathedral is built. Perhaps when you look down to the great depth below you may recall the incident described by Victor Hugo when the Hunchback bellringer of Notre Dame throws Dom Claude over the parapet, thus avenging the death of the unfortunate gypsy girl, Esmeralda.

German Brick Architecture

PACIFIC COAST architects have recently been given an opportunity to view some remarkable photographs of unusual brick work in Germany. Exhibitions, continuing for a period of two weeks in each city, have been held at Seattle, Portland, San Francisco and Los Angeles, under the auspices of the several Chapters and the Pacific Coast brick manufacturers. The attendance has been large and considerable interest has been manifested in the collection which includes more than 500 prints of medieval and modern brick architecture.

The exhibit was sent to this country by the German government in exchange for a similar showing of American brick architecture which is now being exhibited in German cities.

The presentation is made in five divisions, showing medieval defensive structures of brick, churches, public buildings, homes and a special section devoted to modern brick work. Particularly since the war, German architects have been doing much notable work in brick. Architects now regard their treatment of brick as the most interesting and daring architectural work now being done in Europe.

Germany's allegiance to brick architecture began with the building of her cities in the newly reconquered country of northern and eastern Germany in the eleventh and twelfth centuries, following the driving out of the Wends. Active in the direction of this construction work were the Cisteician and Premonstratensian orders of monks and the order of Teutonic Knights, the latter exercising the greatest influence.

Italian influence predominated in the construction of the new German cities, just as it was effective in their architecture and brick work. Probably the most pronounced development came in the twelfth and thirteenth centuries under the supervision of the order of Teutonic Knights. St. Jacob's Church in Thorn is one of the earliest examples. The Dominican Church at Culm followed upon a more elaborate plan. The best examples, however, are shown in the remains of Marionburg. In this there are superb examples of arch work and vaulting. From then on to the present, each century, with its developments making some more or less distinctive changes, is faithfully recorded in the photographs of this collection.

This exhibit of German brick work is said to be the largest architectural presentation ever collected on one material. It was first shown in America at the Art Institute in Chicago. After its tour of the cities it is to be presented to an American architectural college.

HOTEL ELEVATOR EQUIPMENT

[Concluded from Page 47]

Spencer - Westinghouse variable voltage equipment in the main consists of direct current elevator motors, motor generators and controls consisting of contactor panels, car switches, terminal limit switches and automatic starters for the motor generators.

This system of elevator control was first successfully developed and perfected by the Westinghouse Electric & Manufacturing Company. Results have been obtained superior to any other type of control where service requirements covering acceleration, high speed, quietness and power economy are most exacting.

Higher car speeds and shorter acceleration periods can be used, resulting in faster car schedules and better service.

Landings are made easily and accurately because the rate of deceleration is practically independent of the load. A special demagnetizing field is used on the generator to kill the generator fields quickly; thereby bringing the car to a rapid, smooth and accurate stop.

Alternating current or direct current power may be used for high speed elevators with equal assurance of successful service.

All power losses in armature starting resistance are eliminated.

The owners and elevator contractors of the Hotel Sir Francis Drake have spared no expense to make this elevator installation one of the outstanding ones in the city of San Francisco and one that will serve as a monument to those who conceived and executed these marvels of modern vertical transportation.

INDIAN BASKETRY ART in the AHWAHNEE HOTEL-YOSEMITE VALLEY

By Dagmar Knudsen

THE art of the basketry of the Pomo, Yuma and Yurok Indians, dwellers in the hills of Central and Northwestern California, takes a prominent place in the decoration of the interior of the new Ahwahnee hotel in the Yosemite Valley. This is as it should be. What more suitable and beautiful form of decoration can be found than these designs, indicative of the cultural life of the California Indian? Indeed, the Valley once belonged to the Ahwahnee tribe, and even to-day, legends told around the camp fires keep alive the interest in Old Tenaya, maker of trails.

It is an interesting truth that there is a similarity in the color scheme and in certain art motifs, such as geometrical figures, used by primitive peoples all over the world. Recognizing this harmony between the designs on California Indian baskets and in the tapestries and rugs made by the people in the Caucasus, in Persia, as well as in the Pyrenees, Dr. Arthur U. Pope and Dr. Phyllis Ackerman, art consultants, chose a happy combination of the art motifs and handicraft of these mountaineers, and united it under the roof of the Ahwahnee.

Great pines have been cut down and hewn into columns, and rocks blasted from the mountains to serve to support these pillars, which form the outside motif of the hotel. The interior has the atmosphere of the out-of-doors, for there are no tones in it but that belong to the gray cliffs, the clouds which rest on their summits, the meadow grass and flowers, the sky, and the trees.

GUEST ROOM, AHWAHNEE HOTEL

The feeling of the Yosemite is expressed in no more beautiful way than in the *toile peinte,* a tapestry, or wall hanging done by Robert Boardman Howard for the writing room off the lounge. A revival of the Fifteenth century decorative art in Flanders, "this toile marks the reintroduction of an important art, an addition to the resources of both the architect and the painter."

Mr. Howard's toile consists of "scores of little flowering plants, some shrubs and trees, fitted together without any geometrical ordering, in a continuous but ever varying design." Interposed are the best known animals and birds of the Yosemite, in clear fine color.

The "toile," six feet high and twenty-six feet long, fits above a panelling.

Let us try to analyze the charms of the lounge that every one is is talking about. With subtle understanding of balance and proportion, in color and substance, the art critics have selected this sofa, that becushioned Colonial chair, or yonder 17th century Tudor table, because they combine with the great fireplaces in creating the environment of a luxurious home. And this is art!

Moreover, the home-like quality is emphasized in the informal way the furniture is placed, apparently without plan, the rich tones of the upholstered pieces showing up

in contrast to the cream-colored California stucco walls. Mezzanine floor windows as an ornamental factor on a wall, are seen in two panes bordered in walnut-stained pine, high up on the Southern end of the lounge. This small mezzanine floor is reached from the solarium.

Table lamps, vases with valley flowers, or groups of Indian baskets, are the smaller objects which give the final touch of beauty to this large living room, where the lack of pictures is an asset.

Your attention is drawn to the beamed ceiling, decorated with many different motifs from California Indian basketry, in brilliant green, orange, reds and yellows, all colors of the Khilim rugs in the room. This new scheme of decoration, which any one may have if he will but transcribe the designs from the baskets and adapt them to his own ceiling, is carried out in a ten-inch frieze on the greater part of the lobby, leading to and around the main entrance. The beamed ceiling of the entrance is also ornamented in Indian designs, the colors corresponding to those of the brilliant feathers of the woodpecker, the blue jay, etc., a component part of certain Pomo baskets.

Furthermore, the floor of the wide entrance is inlaid with designs from the baskets of the Pomos, the Hupas and the Yuroks. Henry Howard, after whose plan the mosaic was made, has introduced a new method, both technically and artistically. The designs, on rubber tiles, are cut out like mosaics and set into the acid-stained cement by means of brass strips. And, as to the colors in the mosaics—have you ever made a study of the feathers of California birds?

Leading off the Western end of the corridor, near the lounge, is the wide dining room. True, there is no Indian decoration here, but the character of the Valley is ev-

Lloyd Photo

THE SOLARIUM OF THE AHWAHNEE IS ONE OF THE MOST COLORFUL ROOMS IN THE HOTEL. THE JASPER FOUNTAIN AND THE SUNLIGHT STREAMING IN THROUGH THE IMMENSE WINDOWS ADD TO THE ATTRACTIVENESS OF THE ROOM

erywhere brought out. High stone pillars at one end, like those which support the balconies on the outside of the hotel, are joined by a glassed-in balcony, medieval in appearance. This effect of aesthetic solidity is further carried out in a framework of pine beams, which covers the entire ceiling, contrasting well with the light green background.

THE MAIN LOUNGE IN THE AHWAHNEE IS COLORFUL IN CHARACTER. AN UNUSUAL DEVELOPMENT OF THE CALIFORNIA INDIAN THEME IS FOUND IN THE SIX STAINED GLASS WINDOWS WHICH LIGHTEN AND COLOR A SPACE HIGH UP IN THE LOUNGE WINDOWS

Rounded pine trunks against the outer and inner wall add to the outdoor atmosphere, and gaily flowered English curtains, in subdued red, yellow, and green, accentuate the feeling of a California spring between four walls.

With its walls the same clear green tone as the dining room ceiling, the solarium, adjoining the Southern end of the lounge, bespeaks sunshine and health. High windows, gray-green curtains, with a pattern of brick red, yellow and white flowers, give the effect of sunlight shining through early autumn foliage. Straw furniture, and withal, a fountain of jasper rock, add to the room's attractiveness.

On the second floor we find the Indian art in the form of a frieze on the corridor walls; and in the bedrooms, instead of cornices, as a three-inch border of yellow, red, and pale blue. Above the transom door of each bedroom is a different design of characteristic Indian pattern and color. The furnishings of the bedrooms show the bright tones which belong to the Indian basket motifs on the beamed ceiling of the lounge. Some curtains have yellow and orange stripes, these being subdivided into finer lines of blue, brown, white, and red. Bed covers are light and dark orange, or light and dark blue. The modernistic color scheme is evident in the early Colonial candlesticks (electric), with shades in an orange, black, and green pattern.

There are many individual bits of beau-

tiful decoration in which the Indian art is utilized. The overmantle of Indian baskets, painted on the wall over the lobby fireplace, is a modernistic design, the work of Jeanette Dyer Spencer. Mrs. Spencer also made the window-like ornamentation in scarlet and black on the first floor elevator doors, as well as the blue, black, and red Aztec design on the elevator doors of the floor above. On the panel between the latter elevator doors is a jewel-like figure in black, yellow, and red. But the stained-glass panels forming the top transom of the windows in the lounge are Mrs. Spencer's most remarkable creation. A graduate of the University of California in architecture, she later studied in Paris, at Ecole du Louvre, specializing in stained glass.

Although Indian art is the chief decorative feature in the Ahwahnee, and immediately attracts attention, another agent for beauty is the rugs. In the lounge there are many made by the Nomadic people of Persia, and several so-called dower rugs woven by women, an industry of the Pyrenees Alpujarras. A rug from the Caucasus, woven like a tapestry, covers the wall above the fireplace at the Northern end of this room, and further examples of the weavers' genius may be seen in the Tudor lounge on the second floor.

THE WRITING ROOM IN THE AHWAHNEE IS DOMINATED BY THE TOILE PEINTE ON THE WALL. THIS TOILE PEINTE CONSTITUTES A PICTORIAL BOTANY OF YOSEMITE, FOR THE FLOWERS, BIRDS, AND ANIMALS ARE THOSE OF THE VALLEY

In this room are a brocade and two or three kalunkers, or black painted Persian cottons. The brocade on the larger wall, with a background of a soft blue tone, is set off by a secondary color scheme of red, blue-green and black. The pattern consists of hundreds of minute human figures, standing or mounted on horseback. Another one has a design of miniature ornaments in red, purple and blue on a fine gray background. On the floor is a large rug of a pale wine color, with a blue, black and grayish-yellow pattern in the center, and towards the

edges. Persian poetry is noticeable in the border.

Like the rugs in the Ahwahnee, so the curtains, derivative of Turkish, French, Norwegian, and English styles, are striking in design and color. In the Tudor lounge we find curtains with a pattern which originally came from a Turkish brocade. They have splashes of dark blue, light blue and red, accentuated by pink and rich green, a bold flower design on a pale lemon colored cloth. A gayety, an insouciant spirit of the times is evident in the furnishings of the upper floors, as well as in those of the main floor.

Admire as we must the art of the Near-East, in the warmth of color and charm of design in Oriental rug, and curtain of unique pattern, we are, nevertheless, eventually led onward to the early history of California. We mean, "The Days of Old, the Days of Gold, the Days of Forty-nine."

Reminiscent of the miners of 1851 and their camps in the Sierras, is a room near the solarium which does honor to the men and women who helped to build up the State. The California room, with its contrasts in dark, massive furniture and cream colored walls, shows color in the red and the blue window drapes, as well as the Indian blankets on the tables. A touch of realism is seen in the old-fashioned oil lamps, with their sooty glass chimneys, adapted for electricity. There are four of these lamps on two walls, and four in an old wrought iron mounting which hangs from the ceiling. In front of the fireplace is a Polar bear skin, and in another part of the room, a buffalo robe. A colored lithograph representing Bret Harte's "Luck of Roaring Camp" recalls hectic mining days, as do the historic "miners creed" and a view of San Francisco harbor in 1849.

Should you come in winter, when outdoor

THE AHWAHNEE DINING ROOM IS PRIMITIVE IN SPIRIT, AND THE DESIGN ON THE TABLE SERVICE IS FROM THE BOTTOM OF AN INDIAN BASKET. THE SEATING CAPACITY OF THE DINING ROOM IS FIVE HUNDRED PERSONS

IN THE GUEST CHAMBERS OF THE AHWAHNEE HOTEL THE TYROLEAN WALL CABINET WITH ITS THREE BEECHWOOD DRAWERS, PROVIDES A UNIQUE FEATURE IN MODERN HOTEL EQUIPMENT. THE INDIAN DESIGN IS IN KEEPING WITH THE SPIRIT OF THE DECORATION

sports pall and snow lies deep around the sugar pines, then this room will be your favorite corner. Perhaps, too, a blazing hearth fire and a copy of Bret Harte's "Tales of the Argonauts" will help you to enjoy your vacation.

GARDEN DISPLAY AT TROPICO PLANT OF GLADDING, McBEAN & CO., GLENDALE, CALIFORNIA

SOME THINGS ARCHITECTS SHOULD KNOW ABOUT IMPORTED HARDWOODS

by R. A. Curry—Architect

THE hardwoods that are today being produced and imported from the Far-East, including the Philippine Islands, are fast becoming commercialized in the United States. It should be of interest to the architects of today to know about the different kinds of imported hardwoods that are of commercial value, together with information about their names, countries of origin, mechanical properties, economic and practical uses, finishing qualities, etc.

In the bulletin of the Department of Commerce on the Lumber Industry of the Philippine Islands, there are something like 140 different woods classified. There are 60 commercial woods tested and their vernacular names given in the government report of the Netherland East-Indies and about 53 commercial woods described in the Malayan Science Bulletin.

All of these woods being produced in about the same localities, between the Pacific and Indian Oceans, are very closely related. Cross-fertilization seems to occur and in some localities we find, i. e., Damarlaut which seems to be a cross-fertilization with teak (tectona grandis) and it so closely resembles its relation that the difference is difficult to distinguish, even by teak experts. Damarlaut is, however, a little harder, heavier and stronger and for some purposes, such as flooring, is superior to the older wood teak which has held its prestige for centuries. We also have our tangile and lauans or merantis which resemble mahogany (swietenia specie).

Of these 140 different woods which have been classified into four different groups, on the basis of their qualities, strength, durability and special uses, we will take for the attention of the architect the woods which enjoy the greatest commercial value and which, because of their abundant growth, should be easiest to specify.

The woods which we are interested in we will divide into four groups as follows:

FIRST GROUP

This group contains about 28 varieties and includes the hard, heavy, strong, and durable woods suitable for heavy exposed contruction work, boat building, and high grade furniture and cabinet work, and especially hard, non-abrasive flooring. We will only consider those which are of the most commercial importance, i. e.:

a—Teak
b—Damarlaut
c—Merbau
d—Ipil
e—Narra
f—Yakal
g—Ebony

SECOND GROUP

Contains about 45 varieties and includes the strong and durable woods of small quantities which are of little or no commercial importance, with probably the exception of:

h—Guijo

THIRD GROUP

This group is the largest and contains about 65 varieties and is the one of most commercial interest and importance. They are found in the largest quantities and are the most commonly used. In this group will be found the well known tangile, red lauan or red meranti, red resong, apitong and less known lumbayau and mayapis. These woods have excellent figure and finishing qualities for cabinet and interior finish and are the woods of most interest to the architect. Resong and apitong are woods of harder grade, and while being of excellent finishing qualities, are more adaptable for heavy construction work as well as for strong, durable furniture building and flooring.

i—Tangile
j—Red-Lauan or Red-Meranti
k—Red Resong
l—Apitong

FOURTH GROUP

This group contains the lighter shades and colors of lauan and meranti and while all of the same family and more or less the same in quality and texture they will vary in weight and specific gravity in accordance with the quality prevailing in different localities. It

makes no difference as to the finishing qualities, whether a lauan is of any one of the various shades, i. e., yellow, pink or white.

m—Almon-lauan or Almon-meranti

n—Yellow and pink shades of the above

o—White-lauan or White-meranti

Two of the most important hardwoods, of the First Group, *i. e.*, damarlaut and merbau, are specified and used in large quantities in the Far-East, especially in China, where the architects use these woods in preference to all others for cabinet work, interior trim and high grade flooring where a hardness to withstand abrasion, together with beautiful graining and color, are desired. These woods are new in this country and should receive the architect's careful attention.

Damarlaut, as I have said before, resembles teak.

Merbau is just one of the finest hardwoods grown, and is second to none.

The woods of the third group, containing tangile, the lauans, meranti, resong and apitong are the woods which the architects in the United States are most familiar with and have used the most and which have been known generally as Philippine mahogany. The usage of this name, however, is not correct, and it has been ruled by the Federal Trade Commission that these woods are not of the genus "swietenia mahogany" and therefore should not be called mahogany.

The Supreme Court has upheld this decision and the lumber trade must discontinue the use of the name mahogany.

The architect should take note and comply with the law and only specify these woods by their true names either as follows: Tangile; Red-Lauan or Meranti; Red-Resong; Apitong; White-Lauan or Meranti.

These woods of the third group are of the shorea types of the dipterocarp family and have rapidly gained favor because of their aesthetic values and adaptability to almost any kind of architectural treatment.

Due to the fact that the hardwoods of this type have not only rivaled the older competitor (swietenia) mahogany, of the Americas, in beautiful texture, highly figured graining and in pleasing architectural effects of color and tone, they have also supplanted all others in furnishing us with a beautiful and serviceable material at comparatively low cost. They are fast taking the premier position in the hardwood market of today, as is seen in the fact that over forty million feet were imported into this country in 1927 and this year will be even greater. Seventeen million feet entered Long Beach Harbor, California, in the last year.

GOOD AND BAD MATERIALS

In the early days, when these woods were first being introduced into the United States, serious mistakes were made, which have been difficult to overcome, i. e., small mills, with lack of supervision, introduced the inferior pin-hole and wormy material and in order to advertise and induce the architects to use this material they called it mahogany, using the fifteenth century old name, which had the effect of infatuating the architect, who specified it to the satisfaction of the owner, who was delighted with the low cost at which he was able to obtain real mahogany. The material, however, was so poor that it had the effect of giving the wood a "black eye." Since that time and especially in recent years, responsible mills, knowing the havoc caused by the mistake, have been careful to see that such a poor grade is no longer exported to them, but there still remains a limited demand by cheap builders for pin-hole wormy stock.

This timber is being sawn from more favorable localities than in the former days and the architect may specify and be safe in getting shipments "free of pin-holes" and other defects, and should specify accordingly.

Due to the great popularity which the shorea types of the dipterocarp family have gained, the old "swietenia mahogany" got busy and kicked up this awful row over the usage of her name in the term "Philippine mahogany," declaring that they are not of her type and that "they must play in their own back yard."

The fight started and got into the furniture trade which loved to tag the lauans and merantis mahogany and sell it at a big

price, until the Federal Trade Commission stepped in and ruled that the shorea and dipterocarp cannot call themselves mahogany.

Mr. Architect, while not especially interested in this row, has a few words to say, however, for he has become so confused over the many different names used for the

MAH-JONG ROOM, AMERICAN CLUB, SHANGHAI, CHINA, FINISHED IN NATIVE HARDWOODS
R. A. Curry, Architect

several types of the dipterocarp family, together with other kinds of woods being marketed under the name mahogany and some with little agreement with the swietenia mahogany, except in color, that he simply does not know how to distinguish and to specify. These include the following:

"East Indian Mahogany," which is Padouk; "White Mahogany," which is Prima Vera; "Hawaiian Mahogany," which is Hawaiian Koa; "Liberville Mahogany," which is Gaboon and "Philippine Mahogany" which might be any of the following:

a—Tangile (Shorea polyserma)
b—Red Lauan (Shorea negresensis)
c—Almon Lauan (Shorea exima.) yellow, pink, etc.
d—White Lauan (Pentacme contorta)
e—Guijo (Shorea guiso)
f—Apitong (Dipterocarpus basilanicus)
g—Yakal (Shorea and Isoptera spp.)
h—Tiaong, Mayapis, and others.

TOO MANY MAHOGANY GRADES

These many names, together with the practice of marketing copyrighted trade names covering the above varieties, under the standards of some kind of Philippine

mahogany, have caused much confusion and grief among those identified with the building industry.

Each country has a few woods that are peculiar to it; the greater part is of woods which are identical in structure, though they may differ superficially and have different local names.

Tangile and Red-Lauan are the names of the important woods in the Philippine Islands and they should not be called Philippine mahogany any more than Red Meranti should be called Netherland Indies mahogany; Borneo mahogany; Federal Malay States mahogany, etc.

To simplify the matter the architect may specify Tangile, or Red - Lauan (or the same woods of equal structure) from the Eastern tropics.

There are several grading rules established, i. e., those adopted by the National Hardwood Lumber Association and Hardwood Manufacturers Institute Rules and those drawn up by the Philippine Bureau of Forestry, all of which are not forcible enough to meet the conditions of the trade, especially in a buying market. In fact, some of the lumber producers maintain their own grading rules to meet with the particular rules of inspection, and adapted to the needs of the customer or consumer. The difference in the grading rules resolves itself mostly into the question of certain grades having "pin-holes permissible in the rough" or of having them "free of pin-holes."

HOW TO SPECIFY

The architect is concerned in getting the right material to meet his particular demands and especially to safeguard himself and his client against "defective material," and in order to do so he should first make up his mind as to whether he will specify: "A" Material, "free of pin-holes visible in the rough"; or "B" Material "with pin-holes permissible in the rough."

The import differential between "A" and "B" in price being small, he should in all cases specify "A" except in the case of very cheap work, if he has any. He should safeguard himself against the defects of pin-holes, as he might in some cases get enough of them to seriously weaken the structural members and even jeopardize the quality of his interior trim, unless the insects are exterminated in the process of kiln-drying the lumber. You have probably seen sawdust on the floor along the base board and wondered what it was. In former years, as stated above, there was a lot of poorly seasoned, wormy material imported, which has done a great deal of damage to the good name of a good material.

There are other minor defects, which must be taken care of in your specifications, such as heart-rot, dote and shake. Knots are not of so much importance as in domestic hardwoods for this lumber is clear in wide boards of long lengths with few knots.

The F. A. S. (firsts and seconds) grades are combined and correspond to the highest export. It is advisable to specify this grade to be absolutely free of pin-holes, worm holes and grub holes visible to the natural eye in the rough. (Of course, you must specify it to be quarter-sawn if you wish it to show a highly figured ribbon-face.) In the F. A. S. grade you will get what you want for the best work. If your work is cheap and requires a lower price you can specify: Selected F. A. S. Pin Wormy (N. O. Grade) and you should get 75 per cent clear of pin-holes and other defects on one face of the board.

Clear Grade corresponds to the highest grade of lumber sold in the Far Eastern market and exported *for other than* cabinet purposes.

Clear Strips (National Hardwood Lumber Association Rules) Standard, with the exception: Lengths six feet and up, admitting ten per cent of six feet and seven feet lengths. This material is satisfactory for casings, window sills, small mouldings, etc., at it comes in sizes 1x2-3-4-5-6 inches wide and can be used for door and window casings, etc., and it is sold on the import market at considerably lower prices, which the architect should take advantage of in his specifications. This material is in great demand in the market.

Selects—Must grade F. A. S. on one side and not below No. 1 Common on the reverse side. This grade may be the first grading out of the F. A. S. grade.

PIN-WORMS AND ANTS

Pin-Wormy Grades—This is graded in the F. A. S., Selects and Common grades and in general is the grade it is advisable to keep away from, excepting for cheap work. Pin-wormy stock is cheaper in import and retail prices and placed in the hands of a good painter who knows how to fill up the holes, you or your client will probably never notice them, but you can never tell.

White Ants — While the yards in the United States have not been affected with this pest as much as those in the Far-Eastern countries, it is wise for the architect, as well as the lumberman, to guard against them, for once they get into a lumber yard or a building, there is only one remedy which has proven satisfactory in exterminating them and that is to take each one singly and individually (they travel in armies of millions) turn them over on their backs and smack them dead. If anyone knows of a better remedy it is worth millions to the lumber trade as all of the so-called remedies have been tried out and still the white ant bores away and the next thing you know your table legs have fallen off and the little fellows have made a banquet out of your documents and valuable papers. There is a way to build your buildings, however, to keep them out, so that they are cut off from getting moisture.*

[Continued in December issue]

CONSULT YOUR ARCHITECT

AN Architect writing for "Printers Ink" in the July 26, 1928, issue, enters his protest against advertising as noted in the following article:

I am a believer in advertising in all its manifold forms and the important things advertising has done for my profession remain unquestioned, but there is an unwritten chapter connected with certain campaigns which may not have occurred to my readers.

Architects have entered upon an era of what I am compelled to refer to as "interference." People who build homes in this generation desire to specify almost every item which goes into the house. Roughshod, they ride over our professional advice and suggestions. They insist upon having their own way. They ask for this cement and that branded grade of lumber. They order the steel window frames and will have nothing but the sort of hardware they settle upon in advance. I do not think there is a single item in the building of a home which does not come under the jurisdiction of the person who builds the house.

Analyzing this from certain angles, it is an excellent development. Prior to the day when various raw materials were advertised to the general public, the average man paid no attention to the component parts of a house he built. He trusted to the architect. His word was law and his judgment was always respected and depended upon. Twenty years ago no home owner concerned himself with the type of wallboard used, or the insulation of heating pipes. People admitted that all these problems were specialized subjects. Today it is quite a different story. Practically everything which enters into the building of a house is advertised to the "consumer," and he is accepting the invitation to look things over and to use discrimination. No longer is the architect the final arbiter. The suggestions may be listened to respectfully, but the client is quite likely to take issue at any moment and call for a contrary specification.

From an unselfish point of view, I can see the wisdom of educational campaigns. Better homes are often constructed because the owner knows what he is talking about and refuses to permit shoddy material to be used in the house he erects.

I know of one instance where twenty-seven items in a modern bathroom were specified in detail by a home owner. He knew exactly what he wanted from tiling to plumbing and from bath tub to lighting fixtures. Some of these items cost more than the program called for. He smilingly agreed to the additional expense.

But there are drawbacks where we are concerned. Once it was our practice to secure a general conception of the type of

* Architect and Engineer, February and September, 1928.

house wanted, and then go ahead. Now we must have many conferences with the customer on small details.

Estimates are not made in the former manner, because they must be based on special things which are asked for by the client. Very often, when the total cost is shown him, he finds it is necessary to retrench and to make other decisions. This calls for extra labor—an amazing amount of it.

The power of national advertising was never so brought home to me as during the last few years, as manufacturers have been going over our heads and appealing directly to the owner of the house.

A man and a woman came to me not long ago and stated that they desired to build a house in a suburban section. It was not a mansion by any means—just an average little edifice, characteristic of the American of moderate circumstances.

These people had an astounding collection of data and printed matter with them. They had definitely decided, not how the house was to be built architecturally, but what materials were to go into it. And no amount of argument would change their determination personally to conduct this complex expedition.

They specified the lumber, inside and out, by brand name. They wanted certain paints and varnishes and enamels. They had in mind the type of art shingle to use, the metal sash, the wallboard, the plumbing, the house-wiring, the plaster, the window glass, the gutter metal, the type of coal window for the basement, the furnace, the bathroom fixtures, the refrigerator, the window screens, the hardware, the radiators and the new type of covers for same, the gas range, the flooring for each and every room in that house.

They had a list covering nine pages. Nothing was left to me or to my associates.

They even brought along a plan which had been supplied by a certain well-known advertiser, as incorporating numerous features as to the physical make-up of their cottage.

I felt rather helpless and stupid in the face of such limitations. Nor was their judgment entirely infallible. They specified products which I happened to know were certainly not best for the purpose. Sometimes these products clashed, but the advertising had sold them completely and rather marvelously.

It might be inferred that it would be far easier to deal with people who know exactly what they want, even down to nails. I can assure you this is not necessarily the case. People have some strange ideas regarding price, for one thing. They do not always reckon on it. They demand that a house shall come within a certain figure, and then proceed to specify extravagant modern appliances and materials.

In not every case do such products and lines live up to specifications; often, at least, they differ from the conceived ideas of them arrived at by the home owner. But we are blamed.

Modern houses are t r a d e - m a r k e d throughout, a situation which was not true in the old days. A renting agent, or a man who builds ready-made houses for sale, points to almost every item in a house and the insignia which stamps each as the real article.

Before the modern house owner goes to an architect he sends for a world of catalogs, booklets, estimates and tracts, which relate to the items entering into the building of a home. It is practically impossible for him to master the intricate details of these goods in even a considerable period of time. He invariably considers them independent of other and related factors and this, I may say, influences the matter seriously.

He sees an attractive picture in colors, for example, of a certain type of tinted art shingle and straightway demands that this roofing go on his house, although the building, architecturally, may not be in proper harmony.

He asks for metal sash when the conditions are not mechanically propitious for it. He demands paint of a certain character, although a professional house painter might know that this was in no wise the best product to use under the circumstances. I might mention hundreds of similar instances.

[Turn to Page 103]

THE CARTHAY CIRCLE THEATRE

LOS ANGELES

Dwight Gibbs-Architect

IN THE day time, the white loveliness of the new Carthay Circle Theater, Los Angeles, beckons for miles away, and later in the blue of the night when the thousands of city lights are gently sparkling, the bright and far-reaching illumination of the lofty tower forms a welcoming beacon of light. Simple, massive, and dignified, the building stands out because of its intrinsic beauty.

Of course, any white building might attract attention because of the startling contrast of a dark sky and dazzling white walls, but there is something of the soul-rousing architectural appeal in this exceptional theater that compels interest and suggests thoughts of romance. It is a building that might have appeared in any tropical country where commerce had not disturbed the nobler arts of living. The primitive beauty of its fine proportion has been made harmonious with a twentieth century residence district.

Incorporated in this theater is the great idea of using as a basis for its decorative theme murals and paintings depicting the early history of California, together with sculptures, photographs and historical objects, and preserving them for all time. Even in the formal approach to the theater is seen a splendid life-size bronze of the pioneer panning gold.

The interior is treated like a handsome but not unfriendly mansion. Naturally this beautiful luxury forms a silent influence to visitors both as to history and to taste in good American architecture.

NIGHT VIEW, CARTHAY CIRCLE THEATER, LOS ANGELES
Dwight Gibbs, Architect

The foyer is in the lowest section of the tower and is protected by a wrought iron marquise, that holds the inserted play announcements. Tiles of Mexican design, cream and blue in tone, have been used as wainscot for the walls and supporting columns. Through a series of doors in this foyer the spacious lobby is reached.

Here are two paintings, both by well known artists, "The Raising of the American Flag at Monterey Bay by Commander Sloat,"

by Alson Clark, and "California's First Theater," by Frank Tenney Johnson. At either end of the lobby are broad stairs that swing up to the lounge on the second floor.

On the newel posts of the stairways are bronze busts of Indian leaders, and on the panelled walls are hung scores of photographs of celebrated actors and actresses who visited California in its early days. On the landing of the main stair is another painting by Alson Clark, "San Francisco Bay in 1849."

On both floors the walls are entirely panelled in dark antique wood, above which is a dull gold ceiling. Subdued gold velour curtains hang at the three openings into the auditorium. On either end of the curved wall, between these doorways, are tall mirrors overlaid with ornamental staff openwork. Thick Brussels carpet, buff in tone is relieved with a pattern of reds and soft yellows.

The lounge on the second floor is furnished with the quiet elegance found in a modern home. Treated as part of the lounge, and on a slightly elevated level, is the circular tower room.

From the pool in the center of this room rises the bronze statue of a girlish figure representing the young womanhood of California. This bronze is the work of a young sculptor, Henry Lion. On the walls of this rotunda hangs the only authentic portrait of Lola Montez, a stage favorite of the early days of California. The other paintings on this floor were executed especially for the theater and all depict some experience or incident of pioneer life. The subjects are full of dramatic interest—"Passing of the Pony Express," "Jedediah Smith at San Gabriel," "Arrival of the Oregon at San Francisco"—all of them by Alson Clark, painted in his vivid style.

The auditorium seats 1500, yet, due to its circular shape, is extremely intimate. Two architectural frames, forty feet high, carry huge murals, behind which the pipe organ is located.

The architect used for his inspiration of the ceiling a Moorish textile pattern. It is a maze of radiating beams done in staff, the spaces between the beams forming interesting coffers and alternately filled with large staff grills, through which the fresh air is introduced into the auditorium. A massive staff electrolier of unique design is suspended from the center of the ceiling.

The ceiling under the balcony is ornamented with recessed hexagonal coffers, which are beautifully decorated and serve as recesses for indirect lighting. The seats are of a new design, exceptionally comfortable and covered with black and taupe velour with a piping of orange velvet. The wood panelled exit doors are another detail of interest and are painted in Chinese red lacquer.

A distinctive idea in the design of this proscenium is that the ornament is kept well away from the opening and the stage picture is framed merely by a huge plaster cove entirely surrounding the opening, finished in old gold. Massive columns covered with a freely wrought Mexican design done in gold leaf stand at either side of this cove and uphold a great dark wood hood which extends across the entire proscenium opening.

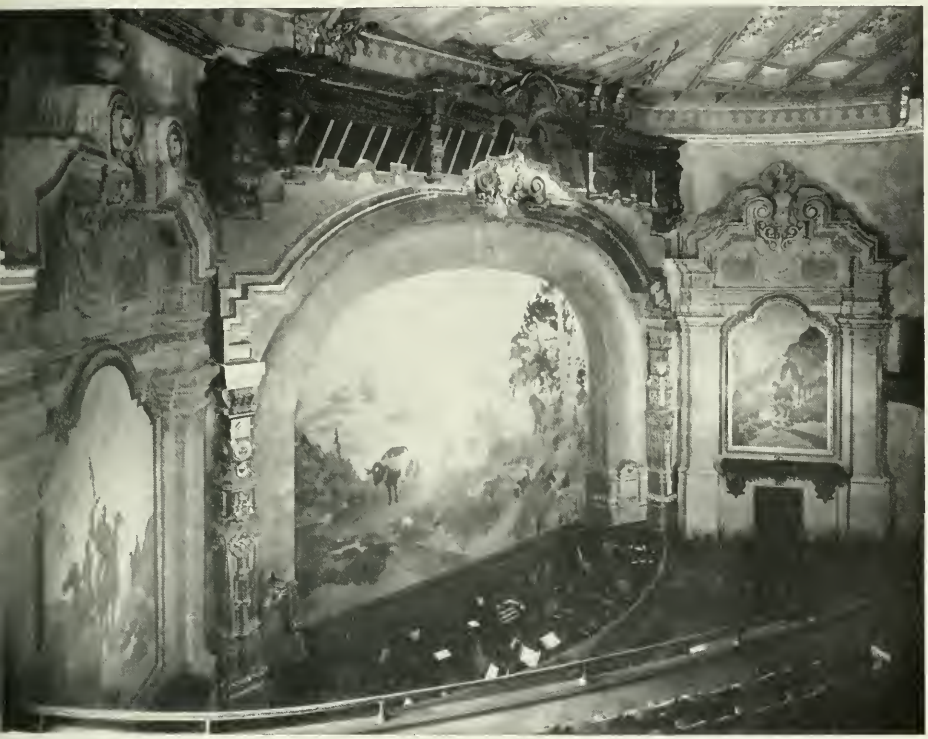
The asbestos curtain is a painting by Frank T. Johnson of early California history, depicting a group of pioneers passing Donner Lake.

The tower is surmounted by a mast carrying a high wattage, clear type C lamp, purposely depending on retinal aberration for a "scintillating star" effect. The bell-shaped cap or dome of the tower is outlined in Neon gas tubes in cross-weave effect in two colors. The interiors of the upper lanterns are softly lighted in pink from flood lights concealed in the floors. The exterior is lighted in detail and at close range by Litekraft reflectors and floods, concealed in

niches, pockets, etc. Major projector floods placed at intervals along the fire walls of the shop portion of the building, and on adjacent buildings, give a soft general illumination over the entire exterior.

The outstanding feature of the interior lighting is the auditorium ceiling. Here the trio of architect, interior decorator and lighting engineer have been able to produce an effect never before accomplished. The ceiling is 100 feet in diameter and the central electrolier is fifteen feet in diameter and weighs two tons. There is not a light visible in the entire auditorium. The fixture contains a three-color system of Litekraft reflectors and standard spots. floods and strips in three colors.

Imagine an electrolier one hundred feet in diameter, for this fixture is only the point or beginning of the ceiling lighting, the entire ceiling practically being a mammoth lighting fixture. In the ceiling surrounding the fixture are forty panels of Austrian pearl glass set in eight panels of five groups each, for emergency only. Outside of these panels are eight hexagonal coffers containing special indirect fixtures in three colors. Radiating from the latter



Photo, Padilla Company

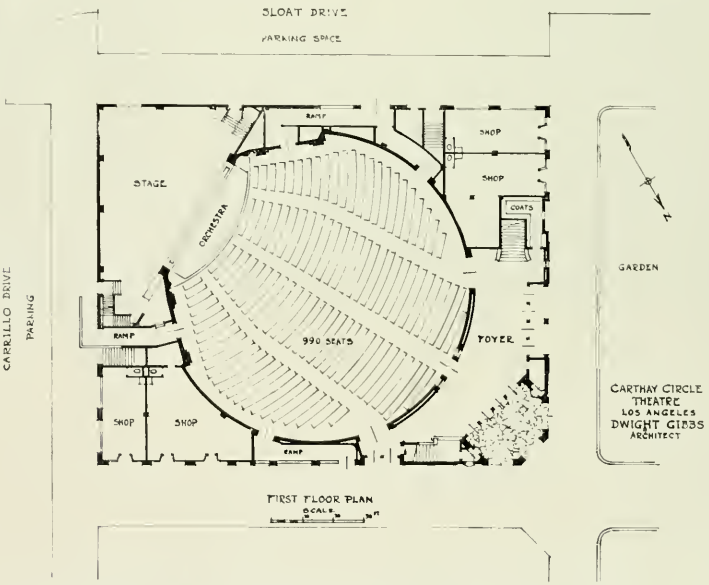
PROSCENIUM ARCH, CARTHAY CIRCLE THEATER, LOS ANGELES

Dwight Gibbs, Architect

ONE OF THE FORTY-FOOT MURALS DEPICTING EARLY CALIFORNIA HISTORY

are twenty-four ornamental silver grills twenty feet long, above which are special color-mixing baffles for "infinite space" effects. Beyond these grills are again twenty-four hexagonal coffers with indirect fixtures, the entire effect finishing in a frieze of colored light from the circular Litekraft cove running entirely around the auditorium.

The stage switchboard functions in this theater in conjunction with the projection room board in that the auditorium lighting foots and borders dimming up and down can be controlled from both boards. Claude Seaman, electrical engineer, designed the complete electrical layout; Dwight Gibbs was the architect and he was supported by the influence of J. Harvey McCarthy, founder of Carthay Center, whose father was one of the prominent figures of the early days of California. It was Mr. McCarthy's vision to incorporate throughout the entire scheme the idea of paying tribute to the pioneers of the Golden State.

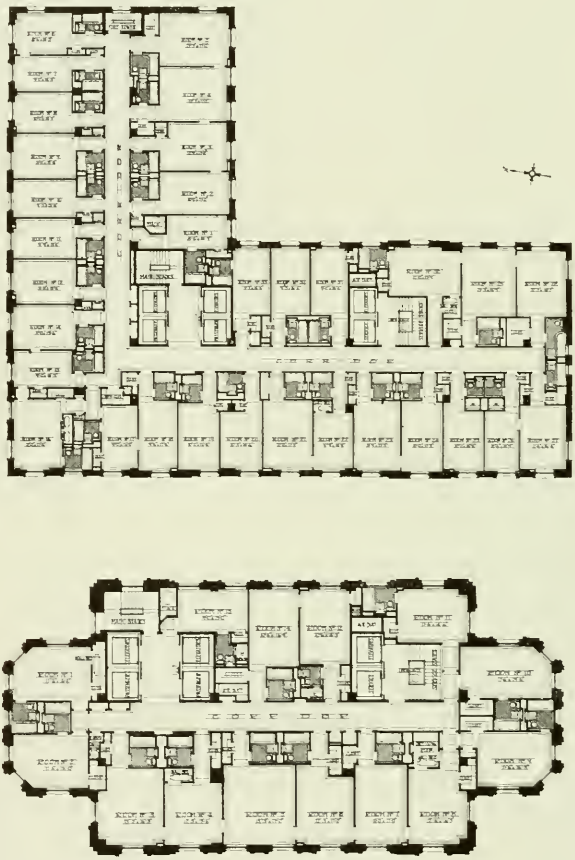


PLAN, MAIN FLOOR, CARTHAY CIRCLE THEATER, LOS ANGELES
Dwight Gibbs, Architect

Photo, Ralph Young Studios *Lindgren-Swinerton, Inc., Builders*

SIR FRANCIS DRAKE HOTEL, SAN FRANCISCO

WEEKS & DAY, ARCHITECTS AND ENGINEERS



PLANS, TYPICAL AND TOWER FLOORS, SIR FRANCIS DRAKE HOTEL
WEEKS & DAY, ARCHITECTS AND ENGINEERS

Draperies and Shades by D. N. & E. Walter & Co.

UPPER STORIES, SIR FRANCIS DRAKE HOTEL, SAN FRANCISCO

WEEKS & DAY, ARCHITECTS AND ENGINEERS

LOBBY, LOOKING TOWARD ENTRANCE, SIR FRANCIS DRAKE HOTEL
WEEKS & DAY, ARCHITECTS AND ENGINEERS

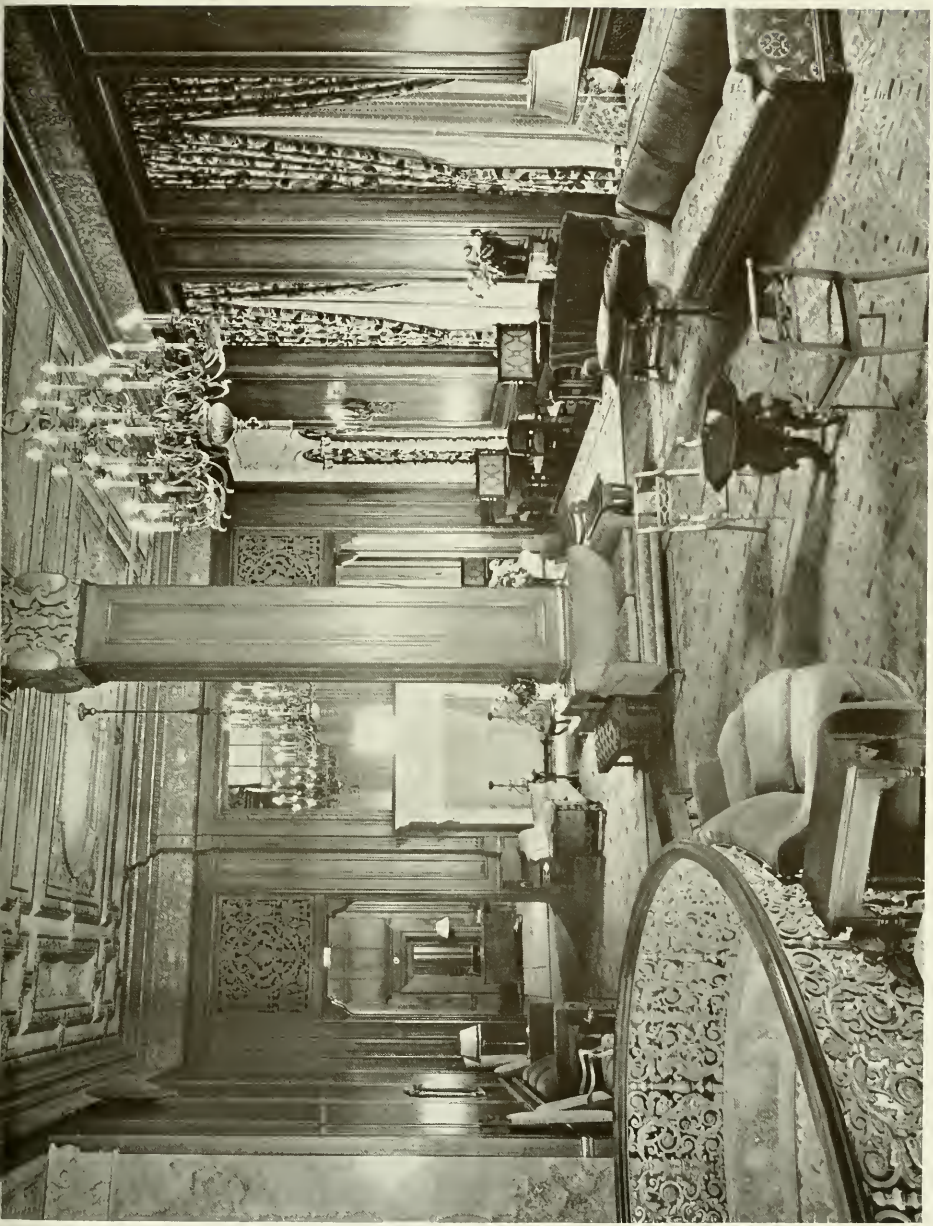
GRAND STAIRWAY TO LOBBY, SIR FRANCIS DRAKE HOTEL, SAN FRANCISCO
WEEKS & DAY, ARCHITECTS AND ENGINEERS

ELEVATOR LOBBY, SIR FRANCIS DRAKE HOTEL
WEEKS & DAY, ARCHITECTS AND ENGINEERS

EAST WALL, LOBBY, SIR FRANCIS DRAKE HOTEL, SAN FRANCISCO
WEEKS & DAY, ARCHITECTS AND ENGINEERS

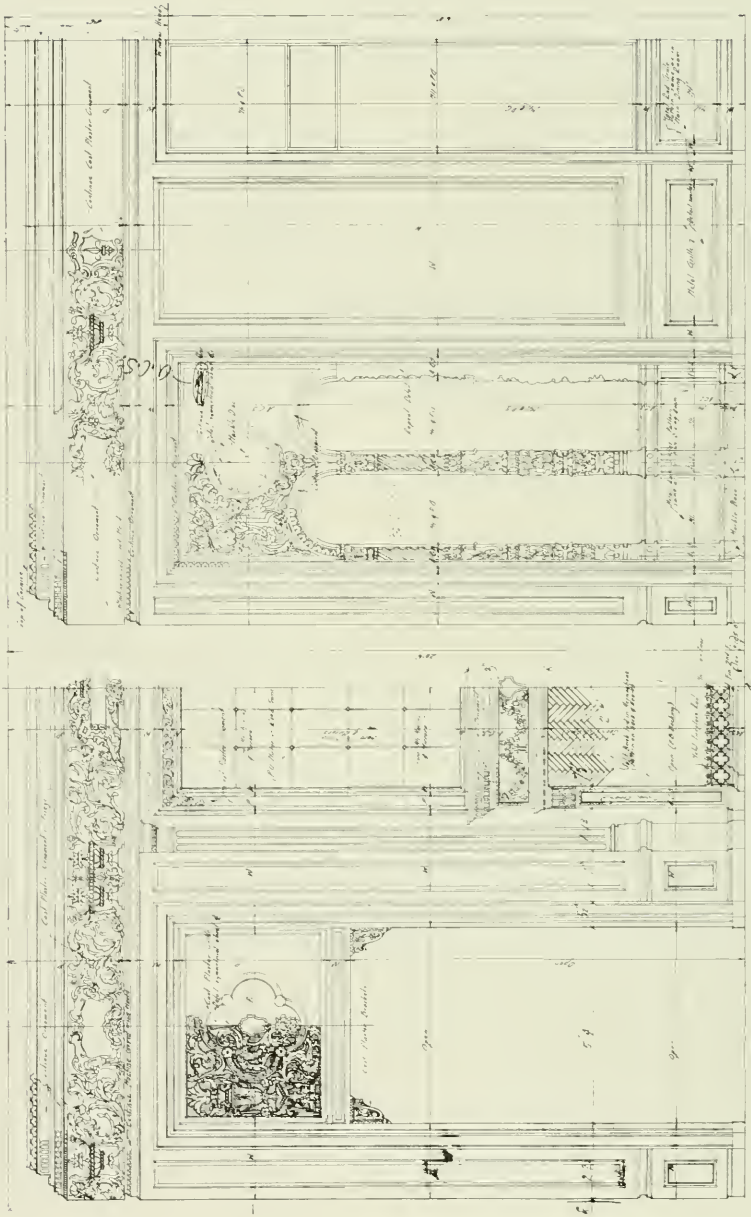
GRAND STAIRWAY TO LOBBY, SIR FRANCIS DRAKE HOTEL, SAN FRANCISCO

WEEKS & DAY, ARCHITECTS AND ENGINEERS



LOUNGE, SIR FRANCIS DRAKE HOTEL, SAN FRANCISCO
WEEKS & DAY, ARCHITECTS AND ENGINEERS

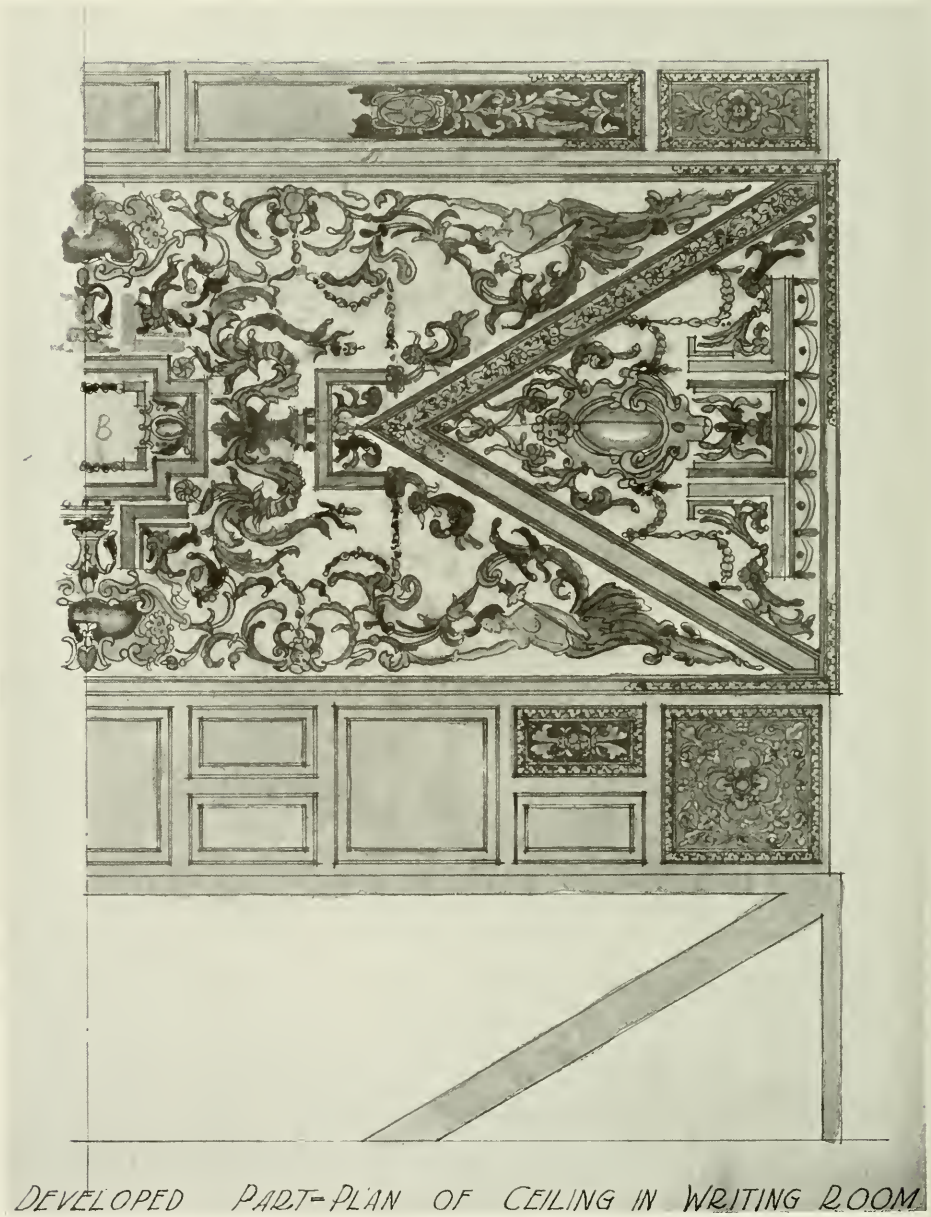
FIREPLACE IN LOUNGE, SIR FRANCIS DRAKE HOTEL
WEEKS & DAY, ARCHITECTS AND ENGINEERS



SIR FRANCIS DRAKE HOTEL, SAN FRANCISCO
WEEKS & DAY, ARCHITECTS AND ENGINEERS

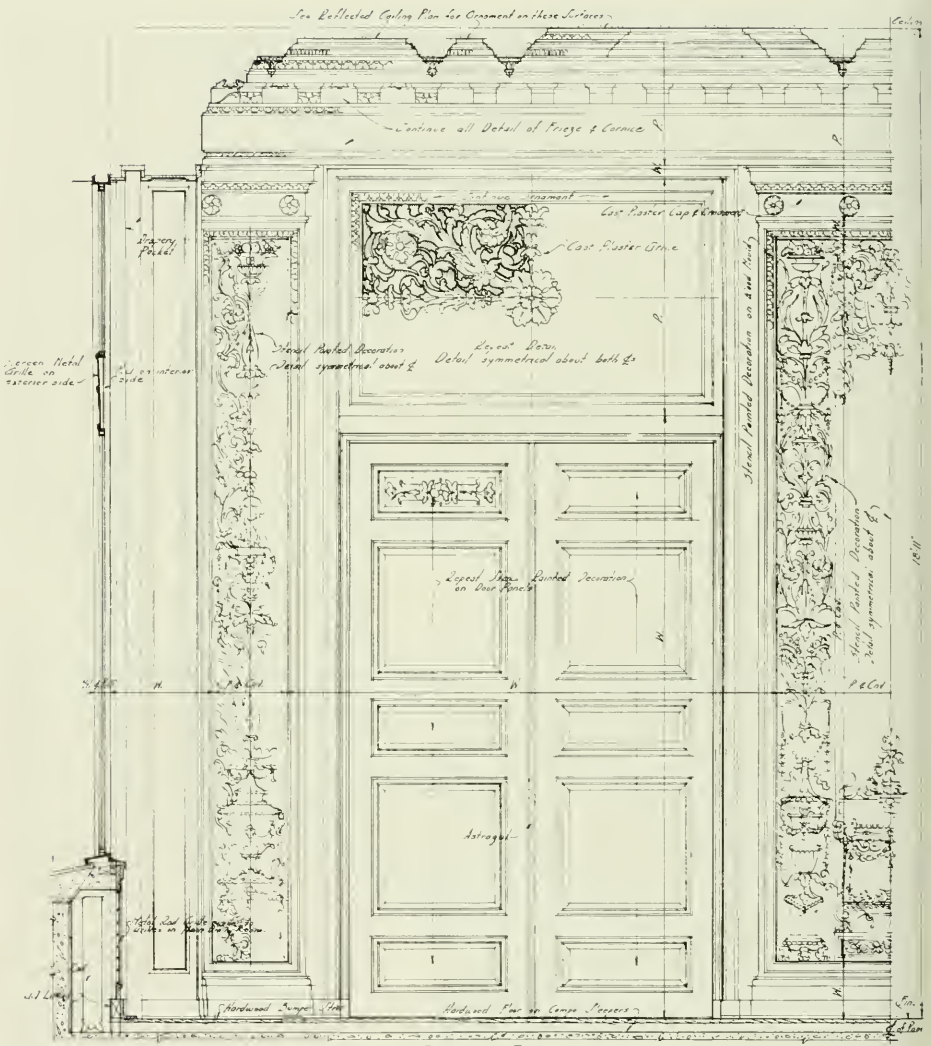
HALF SOUTH ELEVATION TOWARD FIREPLACE — TYPICAL DETAILS OF LOUNGE — PART ELEVATION TOWARD WINDOWS - WEST WALL

WRITING ROOM, SIR FRANCIS DRAKE HOTEL, SAN FRANCISCO
WEEKS & DAY, ARCHITECTS AND ENGINEERS



CEILING DECORATION, WRITING ROOM, SIR FRANCIS DRAKE HOTEL
WEEKS & DAY, ARCHITECTS AND ENGINEERS

CORNER OF SMALL DINING ROOM, SIR FRANCIS DRAKE HOTEL, SAN FRANCISCO
WEEKS & DAY, ARCHITECTS AND ENGINEERS


See Reflected Ceiling Plan for Ornament on these Surfaces
Continue all Detail of Frieze & Cornice
Cast Plaster Cap & Cornice
Cast Plaster Grille
Stencil Painted Decoration
Repeat Stencil Painted Decoration about &
Repeat Stencil Painted Decoration about & symmetrical about both &
Screen Metal Grille on exterior side
Deposit Box Painted Decoration on Door Panels
Astragal
Hardwood Parquet Floor or Carpet Stringers

PART EAST ELEVATION.

TYPICAL DETAIL OF SMALL DINING ROOM.

Scale - $\frac{3}{4}$" = 1'-0"

SIR FRANCIS DRAKE HOTEL, SAN FRANCISCO

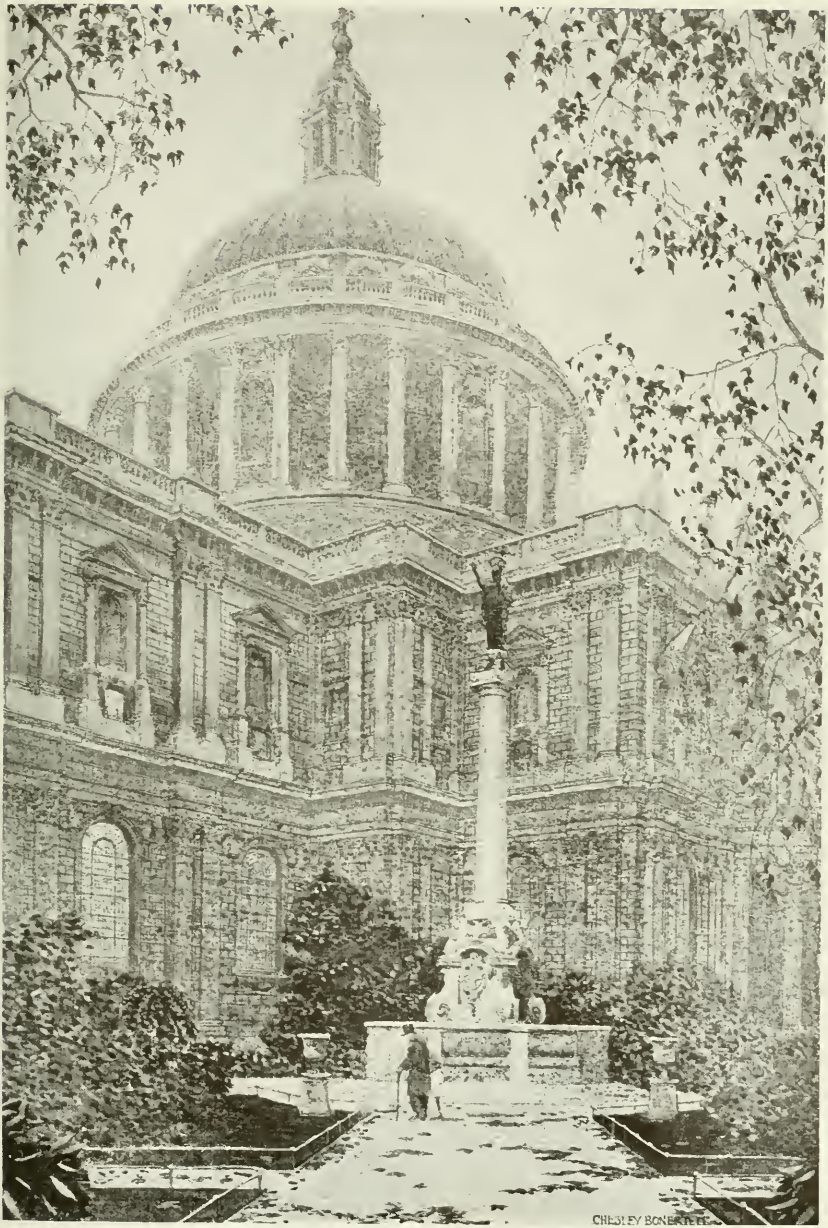
WEEKS & DAY, ARCHITECTS AND ENGINEERS

COFFEE SHOP, SIR FRANCIS DRAKE HOTEL, SAN FRANCISCO

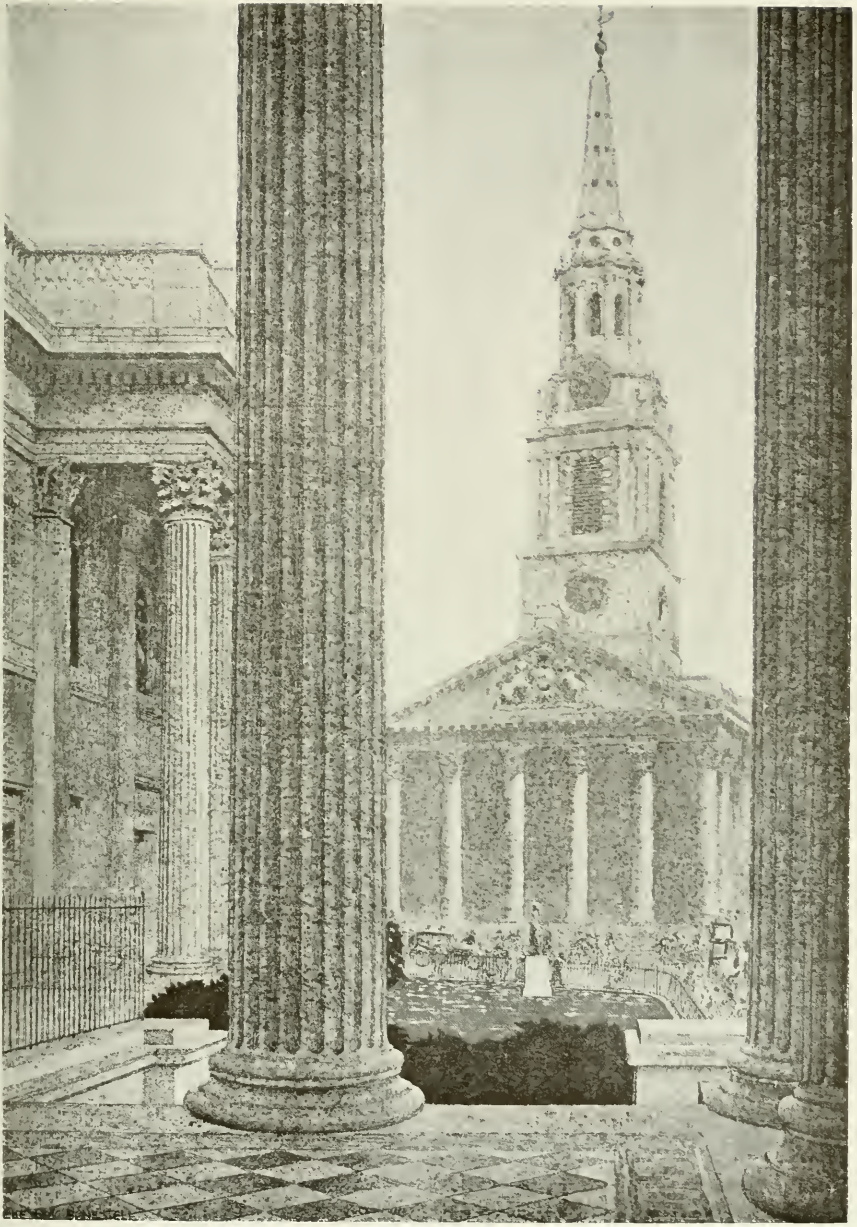
WEEKS & DAY, ARCHITECTS AND ENGINEERS

ALPHA PHI FRATERNITY HOUSE, BERKELEY, CALIFORNIA
WALTER H. RATCLIFF, JR., ARCHITECT

ALPHA PHI FRATERNITY HOUSE, BERKELEY, CALIFORNIA
WALTER H. RATCLIFF, JR., ARCHITECT



ST. PAUL'S CATHEDRAL, LONDON
FROM A DRAWING BY CHESLEY BONESTELL



ST. MARTIN'S-IN-THE-FIELDS, LONDON
FROM A DRAWING BY CHESLEY BONESTELL

RECENT PROGRESS IN MUNICIPAL STREET LIGHTING

By H. C. Reid

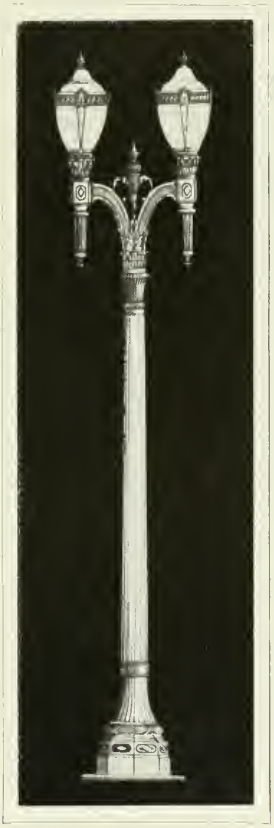
WITH the modern trend toward civic improvement, the street lighting of a community has become an important consideration. The progressive city or town is installing lighting standards of improved design and efficiency. Already the good results of such enterprise are apparent in the favorable impression which these lights create upon visitors; in giving new color to drab commercial streets, and in increasing property values.

The earliest street lighting on record takes us back to the reception of a triumphant Roman army returning from a campaign, where huge torches made of cloth and saturated with oil, were used to light their path. Similar illuminating devices were used subsequent to this for festivals and other night events.

Years later, in an attempt to drive crime from the narrow, dark streets of several cities, oil lamps appeared. These wick-burning lamps were mounted on a post, and were the earliest approach to our present type of street lighting. The oil street lamp became popular in a number of the larger continental centers, and went through an interesting development, only to be supplanted in later years by the gas lamp.

The gas lamp went through successive stages of development and reached its highest lighting efficiency with the introduction of the mantle. This form of lighting, with its architecturally treated standard, is still in use in cities near natural gas supply, and in other cities as well.

The arc light was the most satisfactory of the early applications of electricity to street lighting. Its intensity was far in excess of anything previously used, and its operating cost was considerably less than the early incandescent lamp. The arc light had a number of disadvantages. The light flickered, it required regular maintenance, and further it gave too high a concentration of light directly beneath the arc, necessitating high mounting with consequent poor distribution of light along the street.



DUPLEX LIGHTING STANDARD

With further development of the incandescent lamp, its use increased. The early practice was to enclose an incandescent lamp in a round glass globe, and distribute these lights on standards along the street at regular intervals. The standards for these lights were usually constructed of pipe and pipe fittings, with single, double and cluster lights according to the character of the illumination.

With growing demand for street lighting two things became evident. First, there was need of better control over the light to properly direct it and distribute it along the street; second, the standard should be more than a sup-

STRIKING EXAMPLE OF MODERN STREET LIGHTING STANDARD ADAPTED TO ORIENTAL ENVIRONMENT

porting member. It should possess a graceful appearance and its design should harmonize with the surroundings.

The use of arc lights as a means of street lighting has now almost entirely disappeared, having been replaced by the incandescent lamp for high voltage series systems, a vast improvement over the low voltage 110 or 220 volt multiple systems.

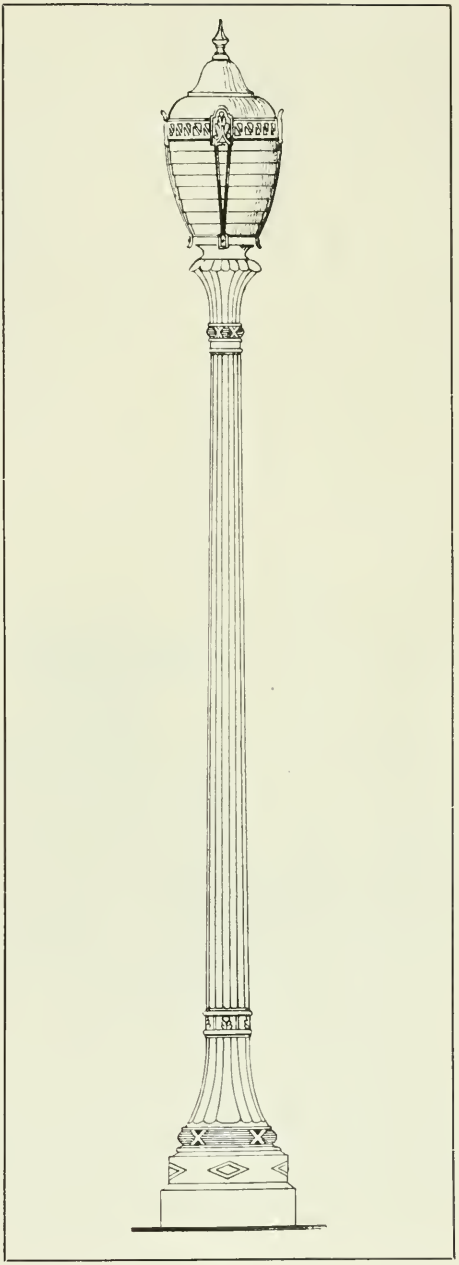
Candlepower output per unit of energy consumption has been wonderfully improved in recent years, and with these developments has come an appreciation of the benefits of adequate lighting at a constantly-decreasing cost. The life of the lamps has been lengthened by the use of numerous protective devices, transformers, automatic regulators and similar accessories.

The modern lighting system is supplied with underground circuits. These circuits are of high voltage copper conductors, using rubber or varnished cloth insulation which, in turn, is protected by a waterproof lead sheath. It is customary to install these cables in steel conduit, which protects the cable from mechanical injury and facilitates removal and replacement of cable in case of damage. The use of the series circuit is a means of providing uniform current supply and voltage to all lamps on the circuit, regardless of their position or distance from the source of supply, therefore securing uniform intensity over the entire system.

Coincident with the development and use of the old style 50-watt 110-volt multiple lamp to the modern 600-1000-1500-watt lamp, the low, uninteresting lighting post has evolved into a taller, massive and more artistic lighting standard, the use of which has a decided effect on civic improvement and enhancement of property values.

Every lighting district presents its own individual problems, and to meet these conditions a great variety of lighting standards and lighting units have been developed.

The planning of a lighting system involves a consideration of the illumination desired, which is attained by the selection of proper intensities, proper spacing of



"NORTHO-LITE" RESIDENCE TYPE STANDARD

SHOWING ARTISTIC LIGHTING ASSEMBLY FOR COMMERCIAL THOROUGHFARE IN SOUTHERN CALIFORNIA CITY

units, and proper mounting heights of the lamps. The illumination is influenced by the width of the street lighted, the character of the improvement—whether residential or business—and whether an ornamental or commercial effect is desired.

In making a selection of the lighting standard we have a wide variety of designs to choose from. Some are of concrete, some are a combination of steel and cast iron, while others are manufactured entirely of cast iron alloy, with or without bronze ornamentation.

MODERN STREET LIGHTING
performs the following functions:

A—As a show window of the city it—
- *a* Attracts out of town buyers.
- *b* Brings new industries.
- *c* Advances civic pride.
- *d* Stabilizes and increases real estate values.
- *e* Promotes other civic improvements.

B—As guardian of safety and comfort, it—
- *a* Lessens crime.
- *b* Facilitates traffic.
- *c* Assists fire and police departments.
- *d* Reduces traffic accidents.
- *e* Relieves strain of night driving.

It is interesting to note the wide range of designs and equipment selected in adapting a lighting system to a particular locality.

San Francisco Chinatown's system is an excellent example of a lighting system in harmony with its locality. The cast iron standards here imitate a substantial bamboo pole, at the top of which two bronze dragons support a pagoda-shaped octagonal lantern with amber glass panels.

The Wilshire Boulevard lighting system in Los Angeles and Beverly Hills is a further example of individual treatment. Its ornamental cast iron standard, with its bronze lantern, is a masterpiece in artistic lighting equipment. The system in the Broadway district of Oakland is a good illustration of proper ornamental lighting for a commercial district. The system consists of a two-light cast iron standard, attractive in design, supporting two 1500 candlepower lamps in modern units.

CONSULT YOUR ARCHITECT

[Concluded from Page 62]

We are apparently entering upon or are well across the threshold of an age of the universal trade-mark. People demand a mark of identification on everything. But they are not all expert combiners and joiners.

I can scarcely argue against the idea of familiarizing a man with the internal composition of the home which he builds for himself and pays for out of his own pocket. It is an American idea which is now almost universal in every direction. We are told to study and know about the cloth which is made into a suit of clothes; the metals which enter into the construction of a motor car.

We have become economic students of the machinery which makes things go. We place everything we buy in a laboratory of our own and put it to a very severe test. This I believe to be the moral right of every man, every woman, who spends a dollar for anything. It will make for better merchandise and better business. Eventually, it will force manufacturers to use certain materials, or the public will not buy their products. A standard of quality will be established, and one of an exceedingly high order.

But a house is somewhat different. You can put a certain roof on some types of homes that would not do at all for others. One dwelling will call for a certain sort of heating system, and the architect will know more about it than the man who is building the house.

Confusion often takes place because the home owner is irrevocably set on having certain things which may not be for the best, advertising notwithstanding.

I am a firm believer in the modern trend to dissect what you buy.

In the end, it will drive out the manufacturers of shoddy products. Nothing can be concealed from the public. It is an idea which has given us the almost perfect low priced automobile. When a car manufacturer today states the facts about his product in his advertising, he makes a point of telling you about the essential accessories and who manufactures them.

The ARCHITECT'S VIEWPOINT

- *Architects Should Be More Appreciative*
- *Portland Solons Shun Architectural Counsel*
- *Antique Craze Becomes Alarming*

CONTRIBUTING EDITORS
WILLIAM C. HAYS . . *San Francisco*
CARLETON M. WINSLOW . *Los Angeles*
HAROLD W. DOTY . . . *Portland, Ore.*
CHARLES H. ALDEN . . *Seattle, Wash.*

AN architect was heard to remark at an Institute meeting that even the architects themselves could not agree as to whether a certain design was good or not good. This is a state of mind that many architects are in, that is responsible for some of the lack of patronage and respect for the profession. The failure to applaud the leaders, and the failure to praise the best work in our own communities, and more distant places, can only be prompted by ignorance, or worse, jealousy. If all the architects are not of a single mind in recognition given the superlative in the building art, the layman cannot be expected to praise nor ask for the best.

We are not interested in merely another "job"; we want gracious and appreciative clients, but in order to achieve them we must first have gracious and appreciative architects.

* * * *

PORTLAND architects have been trying in vain for many years to be allowed to suggest improvements in the City Plan. Even some of the editorial writers on Portland newspapers see no reason why an architect should be any better qualified to make worth while suggestions for bettering the physical aspect of the city than could be made by the public in general.

The Municipal Art Commission has almost ceased to function because its recommendations in the past have been accepted only when the municipal governing body agreed with the Commission, which has occurred but seldom.

The Oregon Chapter, A. I. A., has been humble, far too humble, in its dealings with the city governing body, and has allowed its voice to be drowned out until it is heard only by the antagonistic editorial writers. It is almost unbelievable that such a state could exist in a large city of today, yet such are the facts.

However, the Portland architects are not giving up the fight, even though they have been continually on the defensive. They are working on some new power plays and with them hope to score a touchdown against the heavy opposing team.

* * * *

ALTHOUGH our most beloved architects have never been afflicted with the dread disease of "arty-texturing," its contagious germ has spread to an alarming extent. The malady has even begun to devastate the craftsmen so that they suggest to the architect that he allow them to demonstrate their antics in creating an old world effect with new world materials. It is really growing difficult to find a mechanic who can do a good straightforward piece of work, and who suspicions that real skill has merit.

If the same thought that is necessary to obtain the simulated effect of an old ruin could be turned into the real art of building—the architecture of adventure—what a renaissance we should have!

There is so much that could be done by the concerted efforts of architect, craftsman, and manufacturer, and so much that should be done, that it seems "antique-ing" receives far too much attention.

Just a little thing that comes to mind—why aren't there some simple electric lamp sockets made, which would be both practical and of aesthetic appeal, without the adornment of trade marks and patent dates, with some decency of form, which could be incorporated into fixture designs without any necessity for masking them as candles, or protecting them from shame with a husk of some sort? It is said that such are made in England and France.

* * * *

NO ONE who holds a genuine love for beauty can fail to be stirred by the romance of the turreted walls of Carcassonne. But Carcassonne belongs to history. Our crying need is for a living architecture; as real and vivid as radio and aeroplanes. The need has brought response all over the world; in Sweden and in Denmark, in Finland and in Germany, and in the United States. Yet this response is still weak when compared with what we may expect.

So long as we build frame and stucco chimneys, from which smoke can never issue without a general alarm resulting; and if we construct frame walls three feet through and camouflage them as stucco on stone, and if we use wrought iron hinge straps (without the hinge) beaten out from Bethlehem shapes, and so on *ad infinitum*, a living architecture will die for lack of nourishment.

This is a self-conscious age in all the Arts. We have traveled—we have felt the romance and beauty of a Carcassonne, and we want to possess these qualities. However, Carcassonne was not built just to look romantic, neither was a ship so designed, nor a plow.

A few years ago the all-important questions were, what style and what period? If we could but take style for granted—that is, general style—for there will always be as many styles as there are men who design. Sir Christopher Wren thought he was designing Italian style buildings, but we do not know his work as Italian. His individuality could not be denied.

All automobiles are the same in general style—the only difference in the various makes is in small details and dimensions—even though the makers might not admit the fact. Louis XIV did not realize that he was riding in a Louis XIV coach, but he no doubt regarded it with the same pride that we have for our latest model from Detroit.

Among the papers left by the late Sir Ernest Newton, famous English architect, were some notes which he had made, evidently for some lecture or paper on Architecture. One statement was: "Do not always be thinking you should work in a different manner—Paralysis. Just do it the way you can do it best."

Professor W. R. Lethaby of London, who was greatly admired by Bertram G. Goodhue, once said: "When there is poetry in a people it will be expressed in their arts, but there is not the least bit of good in saying 'Let us be poetic.'"

HAROLD W. DOTY, A. I. A.

The
ARCHITECT AND ENGINEER

SINCE 1905

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Vol. 95 NOVEMBER, 1928 No. 2

Bring It to the Coast

AN International Exhibition of Ceramic Art is announced under the auspices of the American Federation of Arts. The exhibition opened in the Metropolitan Museum of Art, New York, October 1 and continued throughout the month with marked interest. Until December 9th this valuable industrial art collection will be exhibited in Philadelphia. Later dates include Minneapolis, Cleveland, Detroit, Pittsburgh and other cities in the East.

Why should not San Francisco and Los Angeles, Portland and Seattle receive the benefits of this wonderful exhibition? Have we no art association of sufficient influence to bring this collection of imported craftsmanship to the Pacific Coast?

The exhibition includes more than five hundred pieces of pottery and porcelain, representing contemporary work of original design in Austria, Czechoslovakia, Denmark, England, France, Germany, Holland, Sweden, and the United States. The collection ranges from costly, unique pieces made by individual craftsmen, working independently or in connection with organized manufacture, to humble pots and jugs produced in quantities for cheap sale.

Since the middle of the last century, when the arts of decoration degenerated into sterile reproduction and imitation of past styles, great progress has been made, particularly in the field of ceramics, in the renovation of these arts. Happily this renaissance of the craft has not been limited to individual artists; it has extended to organized production as well.

It is a matter of special interest to those who view this exhibition that the ceramic artist of today is no longer content merely to continue the traditions of the past. To what he inherits he adds something of his own -that quality of invention, of personal expression, that is essential to the vitality of any art. Nor can it be doubted that the finest achievements of the present day potter stand comparison with anything that has been done in other times.

Mr. Adams Deserves the Credit

SEVERAL months ago Charles G. Adams, landscape architect of Los Angeles, read a very able paper on "Our Architectural Tragedy," before the Friday Morning Club of that city. In printing an abstract of this paper in THE ARCHITECT AND ENGINEER for August, Verner V. McClurg, architect, was inadvertently credited with the authorship of the paper. This came about by a confusion of an article on "Speculative Building" which appeared in *California Southland* in the same issue containing the report of Mr. Adams' paper. We are glad to give Mr. Adams full credit for his excellent contribution to landscape architecture, and as for Mr. McClurg, a digest of his fine talk on "Speculative Building" will be published in an early number of this magazine.

Mr. Adams, by the way, is one of the new directors of the City Planning Association in Los Angeles. He is also a member of the Citizens' Committee on Parks, Playgrounds and Beaches, and is an executive officer in various other civic bodies in the Southern California city. Readers of THE ARCHITECT AND ENGINEER are familiar with his splendid work which has been shown from time to time in connection with the presentation of a number of fine estates in Los Angeles, Pasadena and nearby territory.

Buildings Reflect Modern Trend

PEOPLE of today are writing the history of American commercial and domestic life into the style, architecture and ornamentation of our new buildings. They express their needs, their taste and their intelligence. Ancient architecture employed symbols to convey information to a people who could not read. Modern printing and reading remove the necessity for such symbols, and the decorative space is employed for a different purpose. Such were the striking points in a statement by Harvey W. Corbett, New York architect, to the Building Research Council.

Every form of architecture the world has ever known, Mr. Corbett points out, has resulted from two factors: The needs of the people, and the materials available. But it was the skill with which materials were used to meet the needs, which reflected the art and the ingenuity of the period.

Although steel frame buildings, enclosed with terra cotta and similar facing materials, made the new American type possible, the development of its distinctive personality was delayed by a period of imitation of older styles, devised to meet entirely different conditions. Now, however, in a style independent of the ancient, outgrown models, American architecture is displaying its own originality and art.

Certificate or License?

WILLIAM H. WHEELER, president of the California State Board of Architecture, and practicing architect in San Diego, wishes to have the California state registration act changed so as to substitute the word "license" for "certificate."

"I find in the proposed new law these words," says Mr. Wheeler: " 'Section V: It shall be unlawful . . . for any person to practice architecture in the state without a certificate.'

"I want to dwell on the word 'certificate.' Doctors, dentists, lawyers, morticians, chiropractors, barbers, and plumbers do not use the word 'certificate,' but they use the word 'license.' I recently saw a little piece of parchment reading: 'John Jones has a license to practice architecture in the State of Oregon.' Therefore, John Jones is an architect and has a license, but in this state a person can be certificated or uncertificated and yet he can practice architecture. In my opinion the word 'certificate' should be changed to 'license,' which would make it a misdemeanor for any man to practice architecture without such permit."

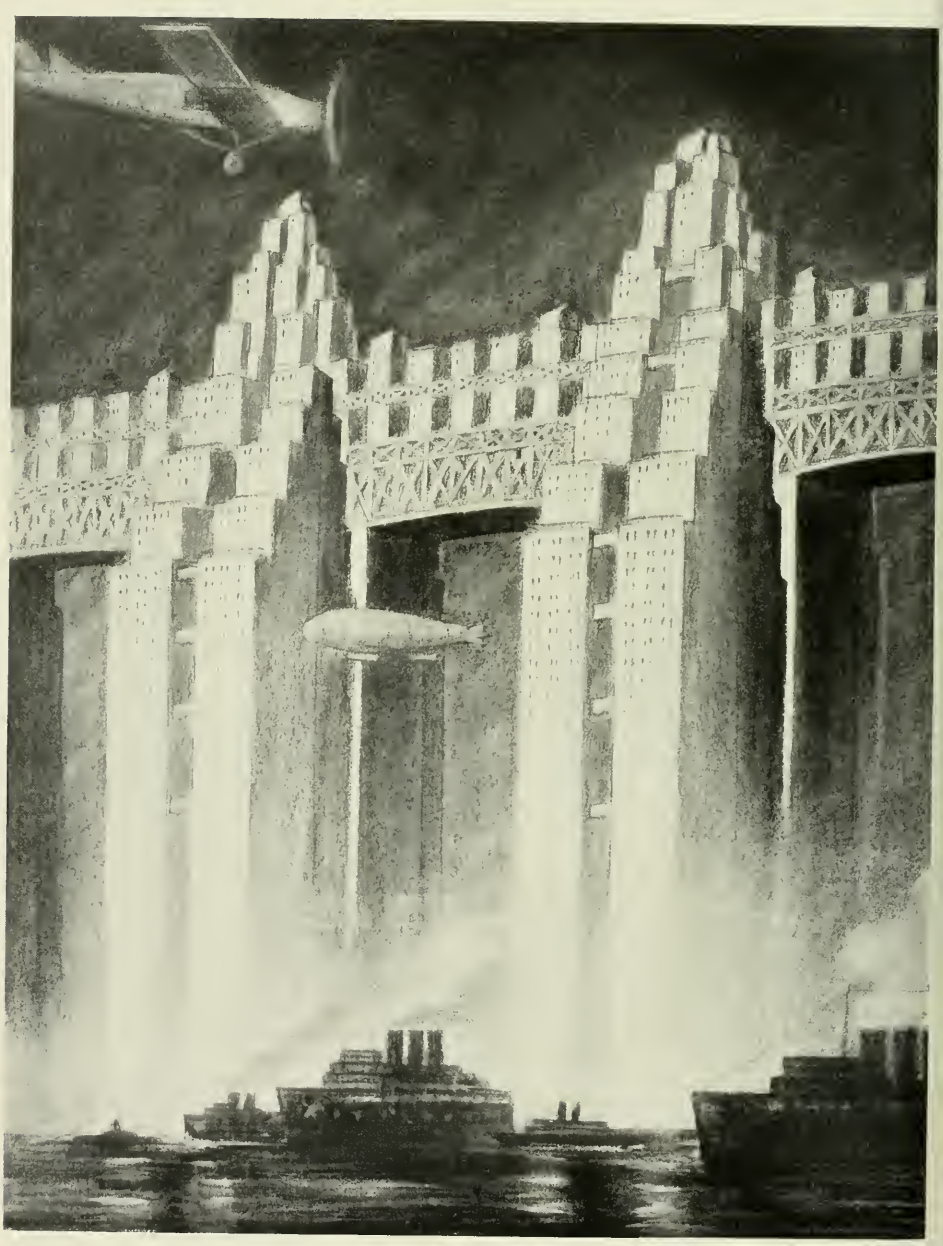
Notes and Comments

DEVELOPMENT of talking pictures will undoubtedly bring drastic changes in the design and construction of theaters, according to Walter W. Ahlschlager, Chicago architect, who designed the Roxy Theater and other large Eastern playhouses.

"The talking picture, when perfected, should enable us to build theaters limited not by their range of audibility but by the range of vision of the audience," Mr. Ahlschlager said.

"High property values, however, will limit the area size of theaters as well as other buildings, and therefore I am inclined to believe there may be skyscraper theaters in the future. In my opinion the next step in building economics is the skyscraper with multiple purposes, wherein complete business communities will be housed under one roof with a theater as a unit.

"The skyscraper offers opportunity for concentration which eliminates waste. The Chicago apparel mart, which my firm has designed, will be a seventy-five story skyscraper offering space for nine different sorts of tenancy. Buildings similar to it might house skyscraper theaters with auditoriums on successive floors. The same talking picture might be operated simultaneously on each floor. The control of the distribution of the audience would be an easy matter, and elevators could be used to carry the audience from the lobby to that auditorium where seats were available. As many floors as needed in the skyscraper could be devoted to the theater."



THE ULTIMATE SOLUTION OF BRIDGING THE BAY AS CONCEIVED BY A. BUYKO

AN EXAGGERATION OF THE ORIGINAL IDEA OF LOUIS C. MULLGARDT, F. A. I. A.

ARCHITECTURAL MASTERPIECES

One of the interesting features of the recent Architects' Convention in San Francisco was a private showing of "Architectural Masterpieces," consisting of four or five clever renderings in burlesque of buildings designed by California architects whose work has become distinguished for its originality.

The graphic picture shown on the opposite page is an exaggeration of Louis C. Mullgardt's original drawing published in THE ARCHITECT AND ENGINEER two years ago and since copied and favorably commented upon in eastern publications. Mr. Mullgardt's scheme was to bridge the bay with a structure that would serve both transportation and housing needs. In short, he proposed to use the massive piers and other structural members of the bridge for hotels and apartment houses. The artist of the accompanying picture, A. Buyko, associated with the firm of Ashley, Evers and Hayes of San Francisco, would go Mr. Mullgardt one better by introducing the present-day step-back method of skyscraper construction, multiplying the housing facilities many times—in fact, providing enough room for the entire population of the bay cities. Mr. Buyko's rendering, besides showing a high turn of imagination and originality, expresses strong sympathy with Mr. Mullgardt's original conception.

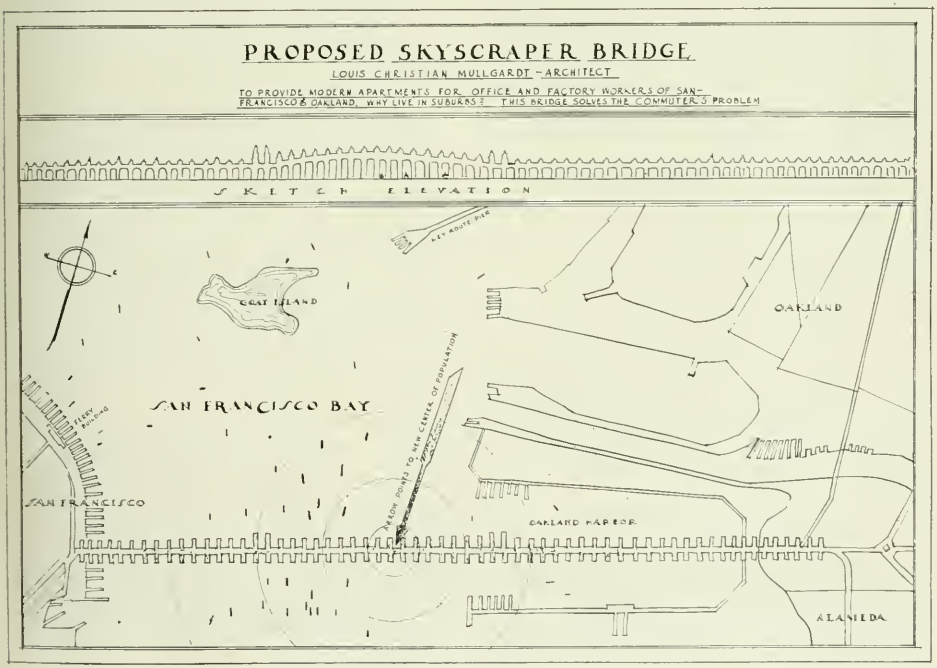
STORE FRONT CONTRACTS

According to C. M. Boynton, manager of the Kawneer Manufacturing Company, with general offices and factory in Berkeley, the company has lately been successful in landing several important contracts on the Pacific Coast. These include Kawneer high quality store front construction, with ornamental design for the Bon Marche Building in Seattle, the eight or more stores in the new Sir Francis Drake Hotel, San Francisco, and the stores and shops in the new Balcovich Hotel in Santa Cruz.

TO REPORT ON DAM FAILURE

The following engineers have been appointed to make a report on the Lafayette dam failure in Contra Costa county:

Charles D. Marx, professor emeritus of engineering at Stanford University; Charles H. Paul, C. E., Dayton, Ohio; A. J. Wiley, engineer of Boise, Idaho, and F. L. Ransome, geologist of the Institute of Technology at Pasadena.


PROPOSED SKYSCRAPER BRIDGE
LOUIS CHRISTIAN MULLGARDT - ARCHITECT
TO PROVIDE MODERN APARTMENTS FOR OFFICE AND FACTORY WORKERS OF SAN-FRANCISCO & OAKLAND, WHY LIVE IN SUBURBS? THIS BRIDGE SOLVES THE COMMUTER'S PROBLEM
SKETCH ELEVATION
KEY ROUTE PIER
GOAT ISLAND
OAKLAND
SAN FRANCISCO BAY
FERRY BUILDING
SAN FRANCISCO
MASON POINTS TO NEW CENTER OF POPULATION
OAKLAND HARBOR
ALAMEDA

WITH *the* ARCHITECTS

HONOR AWARDS FOR CRAFTSMANSHIP

An interesting and instructive exhibition of craftsmanship was held recently in one of the vacant stores of the Russ building, Bush and Montgomery streets, San Francisco. More than 2000 persons visited the exhibition daily. Following is the report of the jury, composed of Messrs. G. A. Applegarth, Arthur Brown, Jr., M. M. Bruce, Ernest Coxhead, Henry H. Gutterson (chairman), R. W. Jeans, B. R. Maybeck, J. R. Miller and James H. Mitchell:

The Northern California Chapter of the American Institute of Architects, prompted by a desire to serve the communities of the San Francisco Bay region by stimulating and offering inducements for maintaining or reviving interest in craftsmanship among artists, artisans and craftsmen in the building world, decided upon a biennial judgment of such work to alternate with the recently established judgment and awards for architecture.

The co-operation of the San Francisco Chamber of Commerce was sought and obtained in order to more adequately enlist the large number of firms listed with them.

Through them the Committee on Awards sent out many invitations and a generous, though incomplete, response was had. Photographs were then sent to the duly appointed jury. Sub-juries were detailed to the consideration of each group of subjects. When their tentative selections were made, the whole jury reviewed them and made the following awards:

Simeon Pelanc, fresco painting, "Head of Christ."

F. M. Lorenz, architectural wood carving, two renaissance panels.

F. W. Wissing, carved wood frame.

Western Art Glass Works, lead overlaid work. "Transom in the Financial Center Building Lobby."

Cobbledick Kibbe Glass Co., stained glass rose window in Congregational church, Oakland.

Federal Ornamental Iron and Bronze Company, entrance grilles, Bank of Italy Building, California and Montgomery streets.

Michel and Pfeffer Iron Works, iron grilles in dining room of Mark Hopkins Hotel.

Sartorius Company, bronze door.

Artistic Metal Works, window grille in a San Francisco residence.

Harry Dixon, metal work, consisting of brass candlestick and welded iron guardrails at residence entrance.

Roberts Manufacturing Company, lantern.

Thomas Day Co., center fixture with candles.

A. Quandt and Sons, ceiling decoration in Telephone Building.

Gurnette and Chandler, painting of Persian tile patterns in a San Francisco residence.

D. Zelinsky and Sons, wall and ceiling decoration in hall room of St. Francis Hotel.

Gladding McBean & Co., decorative tile, fountain panels at Del Monte and terra cotta, Russ Building entrance.

Richardson Tile Co., decorative tile, entrance to Granada Theater.

Port Costa Brick Works, brick work, City and County Hospital Chapel.

McNear Brick Co., common bricks in walls, Piedmont residence and Sigma Pi Fraternity House, Berkeley.

Wm. Heindereich, hollow tile (Brooks' faced). Residence stair.

Johns-Manville, asbestos roof shingles, Henshaw residence, Piedmont.

Carroll Bros., stonework, Carroll Monument, Cross exclusive of base and side altar in marble, Mission Dolores Church.

P. Grassi and Co., Travertit Granite, decorative doorway, Temple of Scottish Rite Masonry, Oakland.

Standard Sanitary Manufacturing Co., lavatory with special fittings.

California Stucco Products Co., mezzanine foyer, El Capitan Theater, San Francisco.

Layrite Floors Corporation, pegged plank and parquet floors.

L. Ph. Bollander and Sons, counterbalanced flagpole and special base, Alamo public school.

The Jury would call attention to all interested that in making these awards they had no thought of treating the firms on a competitive basis. Therefore, there should be no possible conclusion that those receiving awards are better than other firms among those considered or not considered. The jury simply took the opportunity afforded to make awards where they recognized good craftsmanship in the making of materials or in their assembling.

Also, there were some manufactured products submitted for judgment which were not primarily fit subjects for awards in craftsmanship, but were good because of the idea or principle underlying their conception. These, the jury were not prepared to investigate or judge. Therefore, they were placed outside the judgment.

Finally, it was realized that there were many firms or individuals, whose work we should like to have judged, who did not submit material. This condition, we hope, will be remedied by a more complete response to the next invitation in 1930.

INDUSTRIAL BUILDINGS

The year 1929 promises to be a notable one from the standpoint of industrial building construction. A number of nation-wide industries have announced their intention of erecting plants in the San Francisco Bay District, and the investments are likely to run into several millions of dollars. The Ford Company is expected to start on its Richmond assembly plant within the next six months and the Chrysler Motor Company will undoubtedly build in Oakland by early spring. Other concerns which will build include the Seiberling Rubber Company of Akron, Ohio; the Sunset McKee Sales Book Company; Ellison and Russell, engineers; Western Sulphur Company; Cudahy Brothers, and the Neilson Steel Aircraft Corporation.

PRIVATE THEATER

A. H. Knoll, architect in the Hearst Building, San Francisco, has prepared plans for a private auditorium and theater to be built on the Whittell Estate in Woodside, San Mateo County, for George Whittell, Jr. Spanish in design, the building will be for private entertainments and dances, and will include all of the modern equipment used in the regular commercial theater, with added features such as sunken orchestra floor for dancing as well as seating. There will be an organ and fully equipped stage. The estimated cost of the building is $55,000.

OFFICE BUILDINGS PLANNED

Two of the large oil companies, the Shell and the Texas, have announced plans for large office buildings in San Francisco. Sites have been purchased or leased and construction of substantial buildings is promised early in the new year. The Shell Company will build a twenty-story structure on the northwest corner of Bush and Battery streets, to cost $3,000,000, while the Texas Company will build on the block bounded by Van Ness avenue, Franklin, Geary and Post streets. No architect had been selected in either case, up to this writing.

AUTO LAUNDRY BUILDINGS

Guy Lynn Rosebrook, 1404 Franklin street, Oakland, has prepared plans and bids have been taken for a group of steel frame and brick auto laundry buildings to be erected in the block bounded by 11th and Market streets and Van Ness avenue, San Francisco. There will be four buildings, including a free market and eight stores. Approximately $150,000 will be expended on the improvements.

OAKLAND OFFICE BUILDING

Plans have been completed by McWethy and Greenleaf, 374 15th street, Oakland, for a $60,000 medico-dental office building for Messrs. Woodward and Whitehead. The same architects have completed drawings for a two-story frame apartment building in Berkeley for Jerry Sexton. Contracts have been awarded in the same office for a concrete and brick laundry for the California Towel Company.

TWO SKYSCRAPERS STARTED

Construction work was begun the past month on two San Francisco skyscrapers—one a twenty-eight-story medico-dental building known as 450 Sutter street, from plans by Miller and Pflueger, and the other a twenty-six-story Class A hotel and auditorium at McAllister and Leavenworth streets, from plans by Lewis P. Hobart. The two buildings will represent an investment of more than $7,000,000.

SEACLIFF RESIDENCES

The last of desirable building sites in the Seacliff section of San Francisco will shortly be occupied by the construction of three modern homes costing approximately $40,000 each, from plans being completed in the office of Hyman and Appleton, 68 Post street, San Francisco. Allen & Company are the owners, and three other houses for them are under construction from plans by Messrs. Farr and Ward.

22-STORY APARTMENT BUILDING

Plans have been completed by H. C. Baumann, 251 Kearny street, San Francisco, for a twenty-two-story Class A apartment building at Green and Leavenworth streets, San Francisco, for the Bellaire Building, Incorporated. There will be two hundred and fifty rooms. The estimated cost is $700,000.

SAN JOSE CLUB BUILDING

Ralph Wyckoff, architect of San Jose, has recently let a contract to build a club building for the Hill View Golf Club. He has also prepared plans for a large Spanish type residence in East San Jose to cost $25,000.

MUNICIPAL BUILDING

The City of Sunnyvale, Santa Clara County, is to have a new municipal building and the trustees have commissioned A. A. Cantin, San Francisco architect, to prepare the plans. The building will cost $50,000.

IRVINE AND EBBETS BUSY

New work in the office of Messrs. Irvine and Ebbets, Call Building, San Francisco, includes a three-story Spanish type apartment building at Parker and Euclid avenue, for the Alberton Realty Company, to cost $75,000; six-story steel frame apartment building, Clay street and Presidio avenue, San Francisco, for O. E. Anderson, $150,000; three-story frame apartment building, Jefferson and Scott streets, San Francisco, for Benjamin Leibman, $150,000; and apartment buildings in the vicinity of Parker and Euclid avenues for Fred Anderson and M. P. Storheim.

ARCHITECTURAL EXHIBIT

Showing the results of architectural activity in Southern California during 1928, an Annual Architectural Exhibition of photographs and allied arts will be held from November 22nd to December 8th in the exhibit rooms of the Architects' Building, Fifth and Figueroa streets, Los Angeles.

The exhibition will be under the auspices of the Southern California Chapter of the American Institute of Architects, the Los Angeles Architectural Club, the Architects' League of Hollywood, the Pasadena Architectural Club and the Long Beach Architectural Club.

OF HIGH ARTISTIC MERIT

(From *Building*, Sydney, Australia.)

Amongst all the centers of civilization in the world we find journals devoted to subjects of interest to the architect and engineer, but few rise to the high artistic standard of The Architect and Engineer, which is issued as a monthly journal by the company of the same name in San Francisco, U. S. A.

Not only is the general "get-up" of the paper high-class and artistic, so that many of the advertising illustrations attract direct attention, but many of the views of homes in California are worth framing.

EVERETT AUDITORIUM

Everett is to have a $200,000 auditorium, without cost to the taxpayers. Preliminary sketches have been prepared by A. H. Albertson, architect, and Jos. Wilson and Paul Richardson, associate architects. Besides an auditorium to seat 2500, there will be a gymnasium, cafeteria and natatorium.

TACOMA MARKET BUILDING

Lundberg & Ekvall of Tacoma are architects for a large public market to be erected at 2306-8-10 Pacific avenue, Tacoma, Washington, at a cost of $60,000.

PERSONAL

S. S. Bergseth, associated with John Graham, architect of Seattle, is traveling in the eastern states studying new features of department stores. Mr. Graham is the architect of the new Bon Marche building under construction in Seattle.

Sherwood D. Ford, architect for the proposed Seattle Athletic Club building, is making a tour of the United States to study the features used in various similar club buildings. Included in the itinerary are clubs in Minneapolis, Chicago, Detroit, Philadelphia, Boston, San Francisco and Los Angeles.

Messrs. Swartz & Ryland, architects and engineers, 624 Rowell Building, Fresno, have opened a branch office at 301 Pearl street, Monterey, California, for the general practice of architecture. They will appreciate a complete file of current catalogues covering building equipment from the various business houses and manufacturers.

A. Godfrey Bailey, 410 Hillstreet Building, Los Angeles, has returned from an extended tour throughout the United States. He was accompanied by Mrs. Bailey.

B. F. Manning, architect and engineer, has taken over the offices of the late J. C. Hladik, architect, in the Monadnock Building, San Francisco. Mr. Manning is a graduate of West Point, Columbia and the University of California.

GRANTED CERTIFICATES

The following were granted architects' certificates at the last meeting of the California State Board of Architecture, Southern District, October 30: Milton L. Anderson, 603 National City Bank Building, Los Angeles; Frank R. Ingle, 510 Ninth street, Coronado, San Diego; George Gustave Lourdou, 505 West Myrtle street, Glendale; Lawrence Cook Test, 360 Oakland avenue, Pasadena; Martin C. Parker, 216 Hill Building, Santa Ana; Joseph Halstead Roberts, 3942 East Fifth street, Long Beach; Cecil A. Schilling, 1155 Pine avenue, Long Beach.

The following were granted certificates, October 30th, by the State Board of Architecture (Northern Division), to practice architecture in California: James Lindsay McCreery, 508 Berkeley Bank Building, Berkeley; Sidney A. Colton, 3020 Balboa street, San Francisco.

SMALL HOUSE COMPETITION

The Small Home Plan Bureau, under the supervision of the Los Angeles Architectural Club, is sponsoring a small house competition, open to students in the department of architecture, polytechnic high school, Los Angeles. The competition closes November 30. Prizes will be awarded by a jury of four architects, one from the faculty of the Department of Architecture of Polytechnic High School, and one each from the Los Angeles Architectural Club, the Architects' League of Hollywood and the Pasadena Architectural Club.

Awards will be made on the basis of 85 per cent for a practical, well-designed plan and elevation, and 15 per cent for the rendering.

FIVE MILLION BUILDING MARK

Building construction in San Francisco during the month of October involved an expenditure of $5,687,396, according to figures compiled by John B. Leonard, superintendent of the city building department. During the month 764 permits were issued, as compared with 660 permits in September, 1928, for improvements valued at $2,442,080. During October, 1927, Leonard reports, 769 permits were granted, the improvements aggregating an expenditure of $2,518,374.

APARTMENT HOUSE CONTRACT

W. H. Toepke, Call Building, San Francisco, has let a contract to Jacks and Irvine for the construction of a four-story Class C reinforced concrete apartment building at Brooklyn Place, near Sacramento street, San Francisco, for B. F. Fong.

UNIVERSITY BUILDING AT RENO

F. J. De Longchamps of Reno, Nevada, has been commissioned to prepare plans for the Clarence H. Mackay Science Building at the University of Nevada. A donation of $350,000 has been made.

ADDITION TO INSURANCE BUILDING

The Metropolitan Life Insurance Company will build a $500,000 seven-story Class A addition to its office building at California and Stockton streets, San Francisco, from plans by Miller and Pflueger.

PAROCHIAL RESIDENCE

Plans have been prepared by Leonard H. Ford of Oakland for a parochial residence to be built on Manila street, near Broadway, Oakland, for the Church of the Little Flower.

OBITUARY

H. M. PATTERSON

H. M. Patterson, dean of Los Angeles architects, passed away at St. Vincent's hospital in that city, Saturday, October 20, following an operation, which superinduced uremic poisoning.

Mr. Patterson was born in Ashland county, Ohio, in 1856. He lived in Butte, Mont., from 1881 to 1902, practicing architecture in that city. He journeyed from Butte to Los Angeles and continued to practice his profession until his last illness. He specialized in church architecture and designed many edifices throughout Southern California. His last and most important work was the new Immanuel Presbyterian church now nearing completion at Wilshire boulevard and Bernedo street. C. F. Skilling was associated with him in this project. Mr. Patterson was a member of Southern California Chapter, American Institute of Architects.

ALBERT VAN DER NAILLEN

Albert Van Der Naillen, founder of the Van Der Naillen Engineering School and reputed to have been the first man in the United States to make public experiments in wireless telegraphy, died in Oakland, October 27, aged 99 years. Mr. Van Der Naillen was a native of Ghent, Belgium, where he was graduated from the University of Ghent as surveying geometrician before a special royal commission. He came to the United States in 1858 and served as a civil engineer during the Civil War. He started an engineering school in Pittsburgh, later moving to Chicago, where his buildings were destroyed in the fire of 1871. In 1874 Van Der Naillen journeyed to San Francisco, and soon afterward he established his school in Oakland.

CHAS. J. I. DEVLIN

Chas. J. I. Devlin, aged 70 years, and pioneer San Francisco architect, died Nov. 2nd. Mr. Devlin was a native of San Francisco, where he spent practically his entire life. In addition to St. Ignatius Church, Mr. Devlin was the architect for St. Patrick's Seminary in San Mateo County, Mary's Help Hospital and the Presentation Convent in San Francisco.

GOLF CLUB BUILDING

Benjamin G. McDougall, 353 Sacramento street, San Francisco, is preparing plans for a Spanish type country club building in Contra Costa County for the El Sobrante Golf Club.

SOCIETY and CLUB MEETINGS

LOS ANGELES ARCHITECTURAL CLUB

SATURDAY, October 27th, was an interesting and instructive day for members of the Los Angeles Architectural Club, who went on factory tour of the California Foundry and Pottery Company. A buffet lunch was served before the trip through the plant. In the foundry was seen the method of transforming the raw molten iron into the cast pieces, and the enameling. And the pottery end of the factory displayed the working of the raw clays into various shapes, the enameling and the making of color ware. The complete tour was instructive as to the manufacture of plumbing fixtures from the raw materials to the finish.

* * *

This year's Christmas card competition promises some nice prizes in Guptill's "Sketching and Rendering in Pencil" and "Pen and Ink Drawings." The closing date for all designs to be submitted is December 18th. The cards will be on exhibition at the December club meeting.

* * *

A joint meeting of the Architects' League of Hollywood, Pasadena Architectural Club and Los Angeles Architectural Club was held at the Artland Club, Los Angeles, on the evening of October 23.

Clark Baker, Sr., a representative of the National Lamp Works of the General Electric Company, was the chief speaker of the evening, his talk being given under the auspices of the educational lighting committee of the Pacific Coast Electrical Association. Mr. Baker explained the needs for better and proper lighting in homes, factories and commercial buildings, and told in a very definite manner how this could be accomplished by the architect in giving more study to the lighting of the building while it was being designed.

Mr. Baker demonstrated by the use of experimental equipment how a building of perfect architectural design could be spoiled by the improper use of exterior and interior lighting equipment. Another most interesting demonstration was made of a show window using various lighting effects upon the goods displayed. Mr. Baker emphasized that it should be just as important to the architect designing a building to take into consideration the advantages that proper lighting offers as to give serious thought to the proper architectural treatment.

President George P. Hales, who presided, stated the Los Angeles Architectural Club would soon announce the details of a Christmas card competition. He also mentioned a small house competition at Polytechnic high school sponsored by the club, drawings for which are to be submitted by November 30.

Members and guests at the meeting were: Clark Baker, Sr., Welby H. Hudson, W. D. Johnston, W. H. Shepherd, C. Kenneth Hazen, Sr., J. Lloyd Kamm, Cecil L. Simonds, Fairfax D. McKinstry, J. Benjamin, George P. Hales, E. Merrill Owens, Wallace I. G. De Hett, Arthur L. Minasian, Frank L. Moon, William S. Buyers, Aubrey St. Clair, Roy B. Parkes, Edward Mussa, Marcel Mussa, Edward Held, Norman Kelch, J. Raymond Wyatt, Roger Noble Burnham, Jack Hargrave, Claude A. Faithfull, Laurel B. Baker, Ed Langley, Harold E. Shugart, Julian E. Garnsey, H. Roy Kelley, Glenn Elwood Smith, John R. Jarvis, Mark W. Ellsworth, A. E. Fisk, Robert Stanton, O. F. Stone, Rene Gorschalki, Ellis Wing Taylor, J. M. Hitchcock, Kemper Nomland, Albert R. Ritter, N. M. Kauna, Alfred Weidler, G. W. Meyer, Rolf R. Newman, Chas. M. Ellis, R. J. Brennan, C. J. Erickson, R. Loosner, H. C. Whittlesey, E. L. Westberg, Charles A. Stone, L. M. Wrubelle, Harold Drum, Winton Greening.

PASADENA ARCHITECTURAL CLUB

The Pasadena Architectural Club recently secured very desirable quarters in the Stickney Memorial Art Building in the city of Pasadena. The building is an old half-timber, brick and stucco house of English style with shingle roof and well proportioned casement windows. The brick walls have been mellowed with time and the general surroundings are such as will provide splendid environment for the artistically inclined.

The club's Life Class has grown so large that it has been necessary to divide it into two sections. Several well-known local artists visit the classes and give their criticism and help.

A class in Structural Engineering is now formulating plans for the establishment of an atelier to provide the young men with training in architectural design. Several local architects who have studied under Prix de Rome and Beaux Arts professors have volunteered

to coach the members, and by the middle of the season it is expected the class will establish itself along with the older classes now to be found in the larger cities of the country.

The club recently met with the Los Angeles Architectural Club and the Architects' League of Hollywood. These meetings always create fresh enthusiasm and are looked forward to with pleasant anticipation.

The club is planning to hold monthly evening dinners, at which prominent speakers will give talks, and these meetings should provide a splendid means of becoming better acquainted. W. J. S.

ANNUAL MEETING OF S. F. CHAPTER

The annual meeting of the Northern California Chapter, A. I. A., was held at the Mark Hopkins Hotel, San Francisco, October 30.

President Allen addressed the Chapter with his annual report. The secretary read the report of the executive committee. It was moved, seconded and carried that the report be accepted.

Morris Bruce reported for the Committee on Practice.

Frederick H. Meyer reported for the Committee on Legislation and the Code.

Harris Allen presented a report for John J. Donovan, Chairman of the Committee on Architectural Relations.

Warren C. Perry reported for the Committee on the Club Library and on Education.

Raymond Jeans reported for the Committee on Exhibition and Honor Awards.

Ernest Hildebrand reported as the representative to the Central Committee of the Builders' Exchange.

Ernest Norberg reported for the Committee on Drafting Room Standards.

It was moved, seconded and carried that the above reports be received and placed on file.

It was moved, seconded and carried that the balance of $124.98 due from the State Association of California Architects be subscribed to that organization.

The report of the Nominating Committee as presented at the September meeting was read by the Secretary. There being no further nominations for officers or executive committee, it was moved, seconded and carried that the Secretary cast the ballot for the following nominees, who were duly installed:

President, Harris C. Allen; Vice-President, Henry H. Gutterson; Secretary-Treasurer, James H. Mitchell; Directors for three years, Albert J. Evers and Lester Hurd.

(Directors John Reid, Jr., James S. Dean, Earle B. Bertz and Fred H. Meyer are serving unexpired terms.)

Francis Watts, with Harris Allen at the piano, rendered several vocal selections, which were most vigorously applauded.

Edgar Walter, San Francisco sculptor, world traveler and student, spoke to the Chapter on "Modern Art and Architecture in Europe." The relations of painting, sculpture and architecture and their modern phases were delightfully and instructively presented by Mr. Walter.

Lawrence Keyser, Ernest Weihe, James Magee and C. J. Sly spoke to the Chapter on the activities of the Architectural Club, giving an outline of the educational and social work being done for its members.

The next regular meeting of the Chapter will be held at the Mark Hopkins Hotel on November 27, at 6:30 p. m. Dinner as usual.

WASHINGTON STATE CHAPTER

Washington State Chapter members gathered at the College Club, Seattle, on the evening of October 4th, for the first regular Chapter meeting after the summer vacation. Following an exchange of greetings and experiences in the attractive lounging room of the club the members and guests reassembled in the dining room, where the customary dinner was enjoyed. At the conclusion of the dinner, the meeting was called to order by President Ford, who made a brief statement of the activities of the Chapter during the summer, speaking particularly of his meeting with the Spokane group on a trip east of the mountains where he was cordially received.

Letters were read from W. J. Howard, executive secretary of the Pacific Northwest Brick and Tile Association, expressing appreciation of the Chapter's participation in the recent exhibition of German brick architecture, and from Professor Harlan Thomas of the University of Washington's Architectural Department, transmitting a letter from the holder of the Fontainebleau Scholarship made possible by the generosity of the Chapter and other friends of the Department.

A progress report on the design for a fountain for the Seattle School District was made by Lister Holmes, and this was followed by reports from the Chairmen of other Chapter committees. Mr. Thomas, in reporting for the Education Committee, spoke of the effort made through the Inter-Scholastic Conference to get more instruction in free hand drawing and art appreciation in the high schools and of the encouraging response from the school superintendents.

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An Important Development in Building Paper

By Dozier Finley, Director of Technical Research, The Paraffine Companies, Inc.

A BUILDING paper with several outstanding features has recently been introduced to the building trade and its initial success indicates that it will set a new pace in this particular branch of the industry. The paper has been given the name "Pabcotite Red Liner," and is a material radically different from papers that have been in common use heretofore.

Pabcotite Red Liner is comparatively simple in structure. It consists of an asphalt saturated sheet, coated on both sides, upon which a layer of tough paper having great tensile strength is imposed. Although experiments have been made with this material for some time, it is only recently that a manufacturing process has been perfected sufficiently to enable marketing at a low cost.

In addition to being different in construction, the most obviously unusual feature of this building paper is the striking red line running along the center for the entire length of each roll, with the word "Pabcotite" appearing continuously.

Thus is the paper trademarked in such a manner that it is easily and readily recognizable, both in the roll and on the job when applied, a fact which makes substitution of other paper impossible, and gives positive protection, both to the manufacturer and to the architect who wishes to specify this particular brand, and above all it is a protection to the house owner.

As nearly as I know, this is the first time that a building paper has been trademarked in such a way. The value of a marking of this type is obvious, as the custom of substitution has long been the curse of many industries, and probably has reached its height in the building trades. The coming of more and more trademarked—or easily identified—products, is rapidly tending to curb the practice and is proving of tremendous value to those who write specifications, and are held responsible for the satisfactory completion of a building program.

The evolution of Pabcotite Red Liner, as a matter of fact, was the direct result of the demand of architects and builders for (1) a paper that would close the channels of substitution, and (2) a paper that would accomplish certain very desirable results without necessitating an extravagant outlay of money.

Two factors have been responsible for this demand. First, the natural desire on the part of everyone to obtain the best value for the money has led, during the past quarter century and more particularly since the World War, to a type of home and apartment building which is highly superficial. Those things which show are given decorative treatments far beyond anything previously known in the world, not excepting the rococo ornamentation of the nineteenth century. Those things which are hidden, unless legally prescribed by municipal building ordinance, are not infrequently cheapened just as far as possible in order to permit more elaboration and decoration in the show places. The system of competitive bidding on building construction and the system of selling ready-built homes has contributed materially to this undesirable practice in building construction.

Secondly, in many communities a style element came to the fore in the increased use of stucco as an exterior finish for a home and other buildings. Stucco, being absorbent, and subject to cracking, proved to be a poor finish where cheap building papers were used and inevitably disclosed the practice of substitution of inferior materials in the "hidden places." Water, seeping through the stucco, rotted the cheap paper and found other worlds to conquer—it passed on even to the interior walls with the resulting damage that we all know.

Hence, the demand of those interested in construction for an improved building paper.

ST. FRANCIS YACHT CLUB, SAN FRANCISCO

A representative from our Engineering Sales Department took a sample sheet of the first "run" of Pabcotite to several architects and builders for their criticism. The first person he called on was intimately connected with the construction of the new St. Francis Yacht Club clubhouse being built on the Marina of San Francisco. No sooner had he exhibited the sample than he received this enthusiastic comment:

"That's just the kind of building paper we want for the St. Francis Yacht Club. Send a shipment over right away."

To make plain the extreme conditions on the Marina to be withstood by the Pabcotite paper it is only necessary to say that on several afternoons it was neither safe nor possible for the workmen to work from the scaffolding; the wind, catching the Pabcotite paper, would cause the men to lose their balance or lose control of the sheet—yet the Pabcotite did not tear. To test it in these winds the material was laid with a one-foot overlap unnailed at every corner of the building. Yet this overlap, flapping in the breeze,

did not tear in the interval of several days before wire mesh and stucco were applied.

Furthermore, even in the cold of the damp fogs which blanket the Marina, Pabcotite did not crack and, due to its flexibility, could easily be folded into angles of the walls.

FOR THE IDEAL FARM HOME

Recognizing that there is a widespread need for definite ideas on what constitutes a livable, serviceable farm residence, the American Farm Bureau Federation has launched a contest to assemble plans from which will be developed the ideal all-American farm home.

The contest is open to all farm men and women anywhere in the United States, acting either individually or in farm bureau groups. Entrants are required to submit brief letters answering three questions: (1) "What are the requirements for comfort, convenience and economy in the farm home?" (2) "How should it be arranged?" (3) "Should it be a one-story, story-and-a-half, or two-story house?" Accompanying each letter must be a sketch or floor plans, embodying the contestant's idea on the questions and adaptable to a family of five with one hired hand. From the plans submitted one composite architectural plan will be drafted for use by farmers generally.

To stimulate interest in the contest, prizes have been offered totaling $2500 in value. First prize is worth $300, second worth $200 and there will be 100 prizes each worth $20. In case of a tie the full amount of the prize will be given each winner. February 15, 1929, at midnight, has been fixed as closing date for entry. Full details can be obtained from the American Farm Bureau Federation, 58 East Washington Street, Chicago, Illinois.

IN NEW QUARTERS

Architects will be pleased to learn that the Lipman Refrigeration Company has opened new quarters at 515 E. 9th street, Los Angeles. This company handles the Lipman full automatic refrigeration machine, a product of the General Refrigeration Company. It will carry one of the most complete stocks of machines in the city. The organization will be composed of engineering talent competent to handle and advise on refrigerating problems.

TRADE NOTES

The Curtis Lighting Company, Incorporated, Chicago, Ill., has published a set of plans entitled "Lighting in the Church," illustrative of church illumination and its problems. These are well worth writing for to the above company.

* * *

The William Volker Company will shortly bring out an Architects' Specification Book on Window Shades which will embrace numerous questions and problems relative to window shades.

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MAJOR

The ARCHITECT AND ENGINEER

DECEMBER
1928

Front view of Agua Caliente Hotel, Tia Juana Hot Springs, Mexico. Wayne B. McAllister of American Building Company, designer and superintendent of construction. Fernando Rodriques, general contractor. A. A. Barbarosa, plastering contractor. MonolithWaterproof Portland Cement furnished by Squires-Belt Company.

Monolith Protects Famous Mexican Resort

THE picturesque buildings of the famous "Agua Caliente" Hotel and Casino at Tia Juana Hot Springs, Mexico, have attracted wide attention. The structures represent the true Spanish Mediterranean architecture at its best. No expense was spared in making the construction and decorations the best possible to be secured.

Monolith Plastic Waterproof Portland Cement was an important material used in the construction. It preserves the beautiful decorations on the interior walls.

For the exterior walls, the beautiful facade of the main entrance, the garage, as well as the floor and walls of the boiler room which lies below the level of the river, Monolith gives added strength and shuts out any possible dampness.

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Complete information will be furnished upon request.

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The ARCHITECT AND ENGINEER

Since 1905

VOLUME 95 DECEMBER, 1928 NUMBER 3

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Detail side entrance, St. Bartholomew Community House, New York City. B. G. Goodhue Associates, Architects. Variegated Indiana Limestone base and trim

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ETCHINGS OF THE FRANCISCAN MISSIONS OF CALIFORNIA

By Henry Chapman Ford

No. XI—Mission San Miguel Arcangel

The site for this Mission, 30 miles southeast of San Antonio along the Salinas River, was selected and dedicated on July 25th, 1797. Mission San Miguel began under most favorable circumstances. On the day of its founding fifteen Indian children were presented for baptism and within three years there were three hundred and sixty-two converts.

San Miguel Mission is arranged around a patio and the ruined piers of some of the original buildings are still in evidence. The mud-roofed wooden church was used until 1800, when the present edifice was built. This, however, was not dedicated until 1818.

The church has a long, simple nave spanned by heavy beam ceiling and expressed in a plain, unadorned facade. Recently the exterior walls have been freshened with stucco and whitewash. The old mission house, with its original arches and red tile roof, still presents a picturesque appearance.

MISSION SAN MIGUEL ARCANGEL, CALIFORNIA
FROM AN ETCHING BY HENRY CHAPMAN FORD

The
ARCHITECT
AND ENGINEER
December, 1928

The ARCHITECT AND ENGINEER

VOLUME XCV DECEMBER, 1928 NUMBER THREE

RECENT WORK of WILLIAM I. GARREN, A.I.A

By Fred'k. W Jones

IT IS a sad spectacle to pass from the heights overlooking an American city to the depths of its residential area. That magic picture of multiple-colored roofs, teeming in the sun, and of flashing streets, crumbles to a flat meaningless repetition of drab and dreary homes. Certainly, these places, like many men, are willing to die due to the weariness of representing the same thing so oft over and over. The traveler is inclined to wonder if the genius of our architecture is spent upon the business district crowded with towering structures of stone and steel. He is perplexed at the contrast; which is he to accept as the standard of American ideals and aspirations?

On the face of the matter we may continue to expect the construction of homes in the future to be much as it has been to the present; of a stepping-stone from office to auto, from work to week-end. Not until the wardrobe interest in a home has given way to a genuine appreciation of those qualities of ease and comfort and intimacy that the true home alone possesses; not until the philosophy of the species Americanus has changed from one of haste and precipitation to one of leisure and hospitality, will a keen and spirited desire develop to give character and significance and beauty to the building about which so much of one's life orientates.

COURT YARD GATE, W. I. GARREN HOUSE
W. I. Garren, Architect

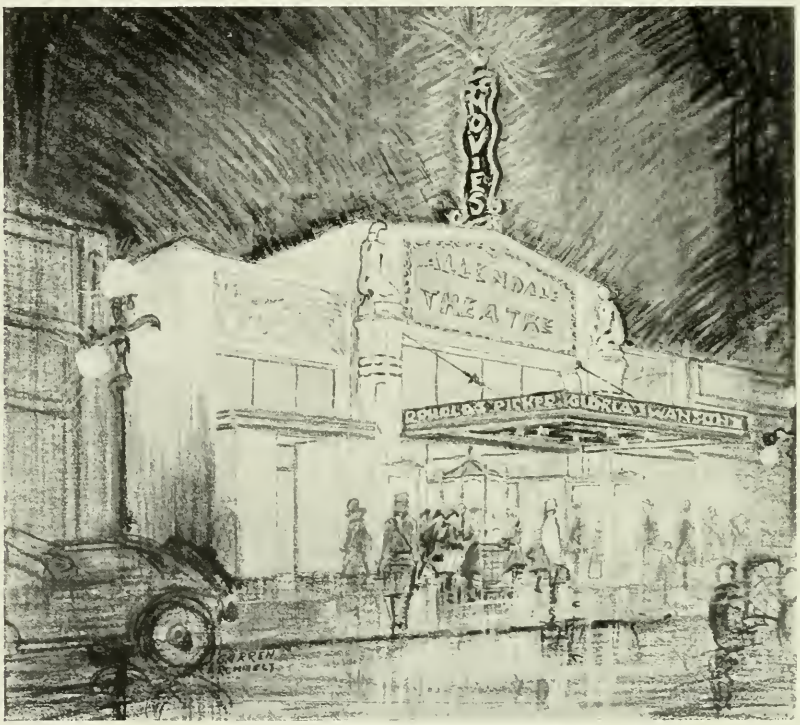
This change of attitude is making itself sharply felt in scattered communities throughout California. Nor are there wanting in this critical period enterprising and capable architects who, with due recognition and

encouragement, are ready to set the stamp and seal of their fresh efforts upon this new ideal.

The December issue of THE ARCHITECT AND ENGINEER is featuring the work of one of these architects, William I. Garren. To the progress of modern California home architecture Mr. Garren has outstandingly contributed his own individuality and genius. Few, indeed, have so notably achieved freshness and vigor without artificiality and grotesqueness in the construction of their houses.

The accompanying photographs are splendid specimens of his work. Here you will find no exaggeration for effect, no affectation, no incongruity between form and substance. The material consistently determines the form. There is no super-imposed decoration, no tinsel. Virgin stone and wood form the background for drapes and fixtures where it is possible. But, however admirable these qualities are, it is particularly Mr. Garren's sensitive appreciation for all the latent possibilities in structural material that has characterized him as a personality among the promising group of younger architects.

Furthermore, he has, with unusual tact, solved those difficult problems every architect must contend with—client, locale, economics, material, and his own artistic bent



STUDY FOR ALLENDALE THEATER, OAKLAND
William I. Garren, Architect

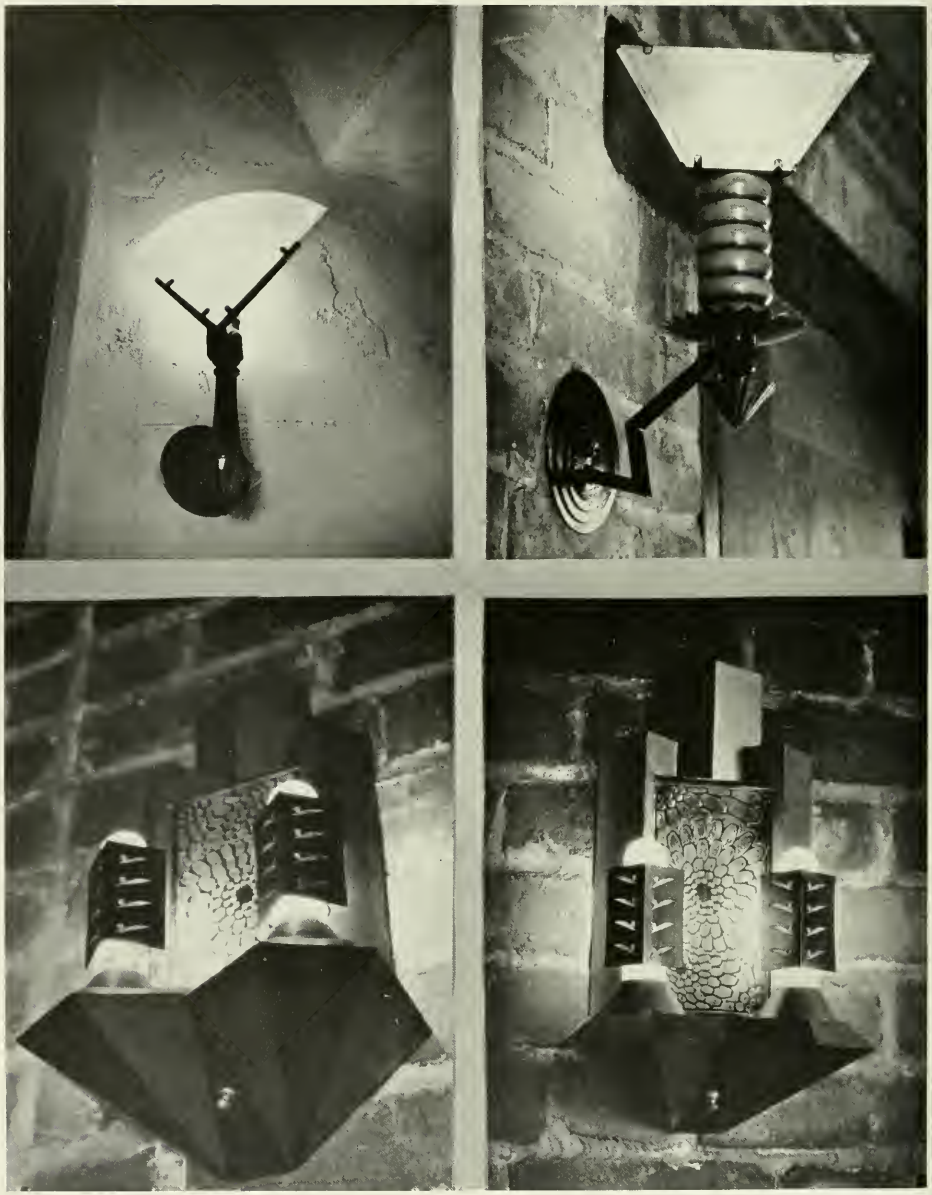
and inclination. The plans of clients, the possibilities of locale with reference to sun and view, the limitations of finance, the effectiveness of material, these are things the architect copes with and shapes and mars or molds according to his gifts.

Mr. Garren is to be congratulated upon his fine achievements. His is not a style of convention. He has been competent enough to formulate his own, endeavoring in each home to exemplify the personality of his client sincerely and honestly. This ability to grasp instantly the character of a man and to express it through an architectural medium is truly dramatic, truly sculptural.

In his earlier work, Mr. Garren was associated with Mr. Morrow, who is well known to readers of THE ARCHITECT AND ENGINEER as a former contributor to its editorial pages. These two men have many tastes and qualities in common, having done some excellent homes together, a number of which are shown in this issue along with some of Mr. Garren's later work.

HOUSE FOR SOPHIA MOLLER, SAN FRANCISCO
William I. Garren, Architect

Those connoisseurs of photography will not fail to appreciate, in the accompanying pictures, the exceedingly fine work of Roger Sturtevant. His unerring architectural sense, his feeling for lights and shades, his technical perfection, command the respect and approval of the most exacting judge, and admiration of all.



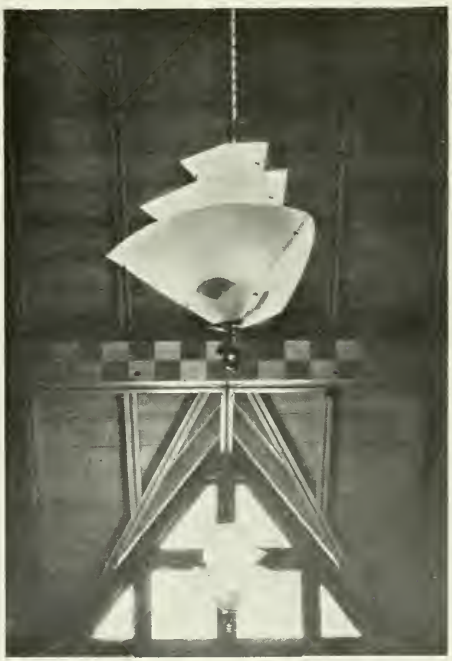
MODERN LIGHTING FIXTURES IN HOUSE OF WILLIAM I. GARREN, DESIGNED IN COLLABORATION WITH THOS. DAY COMPANY, MANUFACTURERS

"Or Equal" vs. "A Standard"

THE words "or equal" appearing in the specifications of many architects have been a thing to quarrel over for many years. The expression permitted an opening for contractors to make charges against architects, in order to undermine their influence with the owner. These charges, it may be remarked, oftentimes were due to direct influence of salesmen for materials which apparently were not to be permitted on a job. The truth generally lay in the fact that the architect had complete information only upon the product that he specified. In his innocence he thought that by using the words "or equal" he permitted an opening of the specifications for other materials that could be compared honestly with the materials that he had specified.

It was an unfortunate term to use, because it was a mighty protection for lazy specification writers and ruined the reputation of many architects. Usually when an architect was approached by bidders who acted as if they assumed the term to mean that the architect had taken the thing he specified as a standard, it was not hard to deal with him. Almost invariably when the architect was approached as though he were obtaining some undue advantage from the manufacturer of the material specified by name, a conflict ensued. The architect did not always win out. When he did there was a certain feeling of distrust implanted in the mind of the owner which was hard to eradicate.

Engineers had been up against the same thing and many years ago adopted a method of specifying so that any one of a number of materials, or any one of a number of appliances, could be decided upon at the time the contract was awarded. The expression "or equal" now has fallen into definite disrepute with architects and, in the search for something better, a new expression has been evolved which is working well and is to be commended. This new method consists in specifying a material, a process or a piece of equipment by name and stating that it has been put into the specifications as a standard up to which things proposed



LIGHT FIXTURES IN KAUFMANN HOUSE

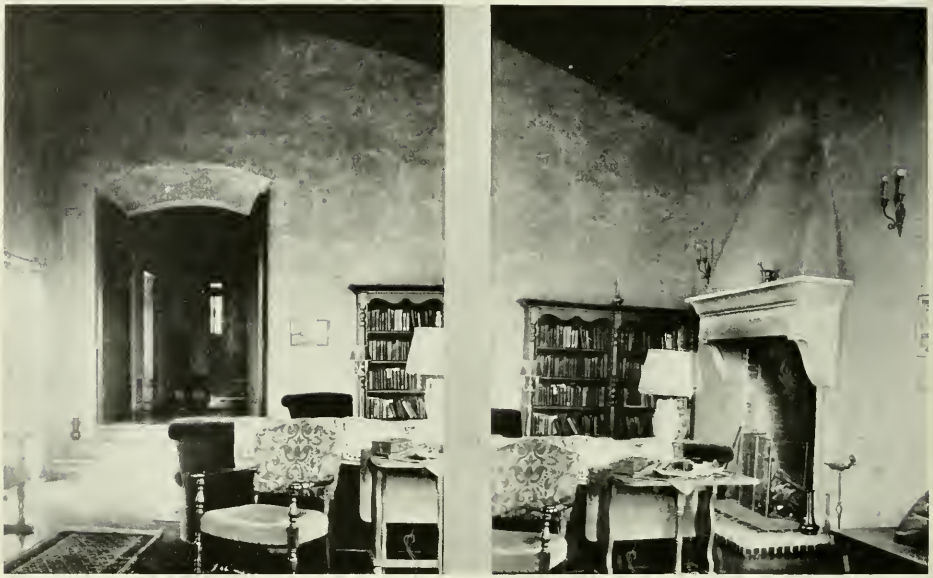


Photo by Alma Levenson

INTERIORS, HOUSE FOR MR. H. D. NICHOLS, PIEDMONT, CALIFORNIA

Morrow and Garren, Architects

STUDY FOR MURAL ON CONCRETE, ALLENDALE THEATER, OAKLAND

William I. Garren, Architect. S. Pelanc, Artist

TWO HOUSES IN PIEDMONT, CALIFORNIA
MORROW AND GARREN, ARCHITECTS

Photo by Roger Sturtevant

See Plate Section for other Illustrations and Plans of Mr. Garren's Work

APPROACH TO LOEB HOUSE, BERKELEY
Morrow and Garren, Architects

PLANS, HOUSE FOR MR. EDWARD LOEB, BERKELEY
Morrow and Garren, Architects

DOORWAY, HOUSE IN PIEDMONT
Morrow and Garren, Architects

in its place must measure. This brings the "or equal" clause idea back to what was the original intention when architects first used these words.

When this new method of adopting something as a standard becomes common it will be necessary for the men who put it in the specifications to be prepared to tell in just what respect this material, process or piece of equipment is, in their ideas, a standard. They must be prepared to have evidence in their offices so that when bidders propose something else they must present information to prove that the article is fully equal to the standard in the main points that architects believe are most essential. For this reason it would be well for specification writers to set up tables of values of the different items that are considered in making selections. Not only should the various points be given values, but each point should have a certain weight in order that a proper average may be obtained. When bidders propose something other than the thing that is specified the tables of weights and values should be submitted to them in order that they can prepare their arguments in a proper form, because, after all, the specification writer is endeavoring to perform the best service possible for his client. —*American Contractor.*

LONGEST HIGHWAY BRIDGE IN THE WORLD

SOON the San Francisco Bay Region will be enjoying another bridge now being constructed from Mt. Eden to San Mateo, primarily to relieve traffic congestion out of San Francisco and Oakland. From shore to shore this low-level bridge will be seven miles long, and with a two-mile approach on the east and a three-mile approach on the west, the structure will total twelve miles in length—the longest highway bridge in the world.

The bridge is being built for the San Francisco Bay Toll-Bridge Company by the Raymond Concrete Pile Company, from plans by Waddell & Hardesty, bridge engineers. Construction was started in December, 1927, and while the contract calls for completion within 18 months, or by June of 1929, the present status of the work and the prospect for continued satisfactory progress would indicate that the structure will be completed five or six months ahead of the date specified. The total cost of the project is approximately $7,500,000.

The decking is 27 feet from curb to curb, with a +½-ft. hand-rail on each side. There will be four 300-ft. fixed steel spans across the main ship channel, with a central lift span of equal length to allow the passage of shipping up and down the bay.

The following quantities are involved in the project:

1,000,000 cu. yds. dredging.
250,000 cu. yds. grading.
23,000 lin. ft. approach paving.
4,800 concrete piles.
35,700 lin. ft. concrete viaduct.

7,500 cu. yds. pier concrete.
200,000 bbls. cement.
52,000 cu. yds. sand.
106,000 cu. yds. gravel.
9,500 tons reinforcing steel.
2,800 tons structural steel.

Floating equipment is used exclusively, as the bulk of the material going into place is precast in the plant at Alameda, 20 miles away. This was made necessary largely because of difficulties attending the delivery of materials at the bridge-site. Hand-rail posts, caps and diaphragm walls are cast on the job; piles, decking, curbing and hand-railing are precast and floated on barges to the bridge.

The majority of the bridge spans are 30 ft. long and supported by 16-in. square piling. Over deep water, however, which requires longer piling, the spans measure 35 ft. and are supported by 24-in. square piling.

Pile-caps are cast in place by building forms on top of the stay-lathing, which device holds the piles in line until the concrete is sufficiently strong to hold the bent as a unit. Precast deck slabs are then set in place.

These slabs come from the casting plant on barges which are tied up at the bridge and alongside a floating steam crane. Lifting them from the barge, the crane lowers each half section, weighing 46 tons, placing it on four 12-in. by 12-in. wooden blocks, located two at each end on the supporting caps. These blocks are placed in such position that the pick-up beam of the slab is properly supported at points previously determined upon.

Building the world's longest highway bridge and floating it into place, section by section, contributes toward making this an outstanding example of engineering skill, particularly as applied to the use of concrete for permanent construction, comments a writer in *Concrete*. In addition to this, the San Francisco Bay toll-bridge job presents the spectacle of perfect co-ordination between two widely separated plants—one producing the precast material, the other setting this material in place, each day marking added progress.

BREAKFAST ROOM, KAUFMANN HOUSE
William I. Garren, Architect

DINING ROOM, NICHOLS HOUSE
Morrow and Garren, Architects

CLASS B PROJECT, "AN ARCHITECT'S TOMB," BEAUX ARTS CLASS, S. F. A. C.

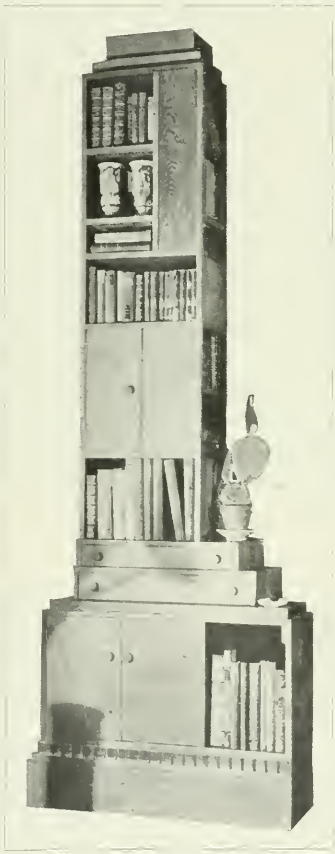
BY MARIO CIAMPI

DYNAMIC ART in MODERN FURNITURE DESIGN

By Rudolph Schaeffer in the California Monthly

IN THIS age of machine and mass production, a period of new creative design activity has commenced, and as is usually the case when a definitely new attitude is introduced into one of the arts, the new organism has been but barely indicated, and lo, a crop of grotesques, all claiming to be the thing itself, has appeared. This is nowhere more true than in its application to modern art in furniture.

I shall try, however, to give some of the general characteristics which mark the spirit and work of the best modern designers, and particularly designers of furniture and objects of use in daily personal life, whether home, office, club, or recreation center. First let me remark that co-incidental with the appearance of the new forms, there has been an appreciation of the psychological effects of *form, color and design*: harmony and rhythm. In the designing of objects of use or of decoration, one of the first considerations has been the office or function of that object: is it to be a chair to be sat in, a motor car which will be supreme in speed, a wall or ceiling light which shall really illuminate, or what not? As everyone knows, the necessity of meeting practical utilitarian demands in the field of modern architecture, bridge design, automobile, airplanes, not to mention many others, has actually resulted in a new form of thrilling aesthetic beauty and originality. Forms as distinguished as Gothic or Classical Greek have emerged; forms which reveal for us the startling poignancy of a few simple lines adeptly handled in combination.



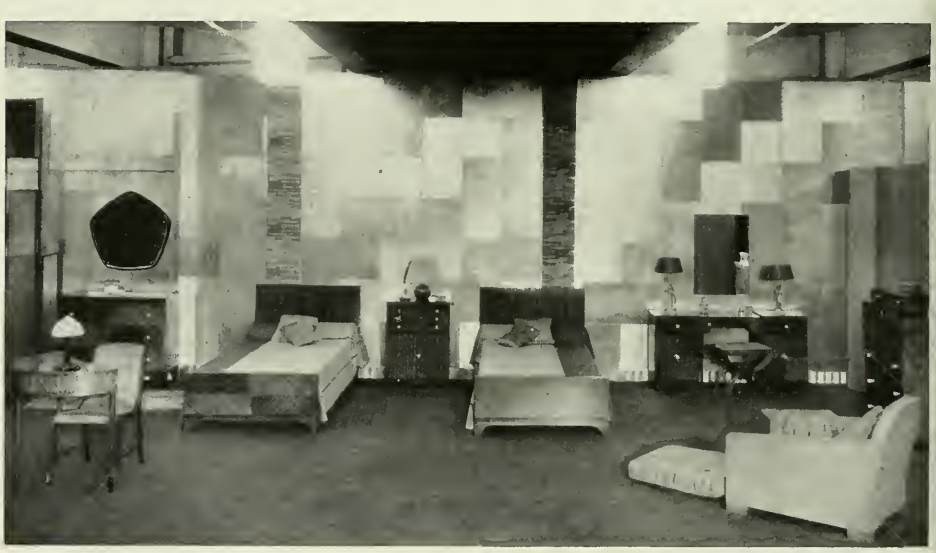
A STEP-BACK SKYSCRAPER BOOKCASE
Designed by Paul T. Frankl.

The designs of modern furniture, then, are avowedly built upon or developed from simple fundamental geometric forms. These present to the eye direct examples of rhythmical lines and mass-proportion, and consequently to the emotions a direct stimulus of a certain nature. One sees chairs, for instance, which are quite frankly modified cones or cylinders; book cases composed of cubical sections, varying in size and arranged in interesting patterns.

A characteristic change or modification of former treatments is that whereas the top of a piece of furniture, such as a cabinet, table or stool, projected several inches and was supported by moldings, in the modern pieces of furniture, cubic form is emphasized and the top and

sides meet flush—the corner only slightly rounded to relieve extreme severity. Another change in the traditional cabinet design is that instead of using inset framed panelling outlined with heavy molding, surfaces are left plain and if panelling is used at all, it builds out from the surface, cameo-like. It is quite true that a severity of line and contour result. However, this is immediately complemented by the element of surface texture and color. These two factors, like that of the form itself, are again a restatement of most important aesthetic qualities, and the designer who is capable of sensing the inherent beauty and subtle emotional possibilities of a piece of wood, glass, woven fabric, spun or soft metals, or the provocative beauty of fine lacquer, is on the road to making an important contribution to the decorative art of our time—in fact, to making our contribution one that will stand in great company. We have, then, as the first two characteristics of modern furniture, subtle simplicity of mass outline, and an inexhaustible variety of surface textures and colorings.

The first-rank creators of modern furniture have exhibited thus far a fine sense of fitness, seeking always to effect a coalition of utilitarian demands and aesthetic virtue. I am thinking of certain low, comfortable chairs, eminently "sittable"; also of the good sense and good taste shown when designing pieces that are to be set away from walls. I am thinking now of certain designs of Kem Weber, a California artist. Such pieces are invariably low, while certain bookcases and cabinets which are to stand against a wall or in corners, shoot from the floor to ceiling with a quite thrilling line. These latter have been admirably developed by another American artist-designer, Paul T. Frankl, a New Yorker of "sky-scraper furniture" renown.



BED ROOM SET DESIGNED BY KEM WEBER

For some reason, most of the modern European furniture imported for American use does not exhibit or represent the finest that is being done in Europe today. Most

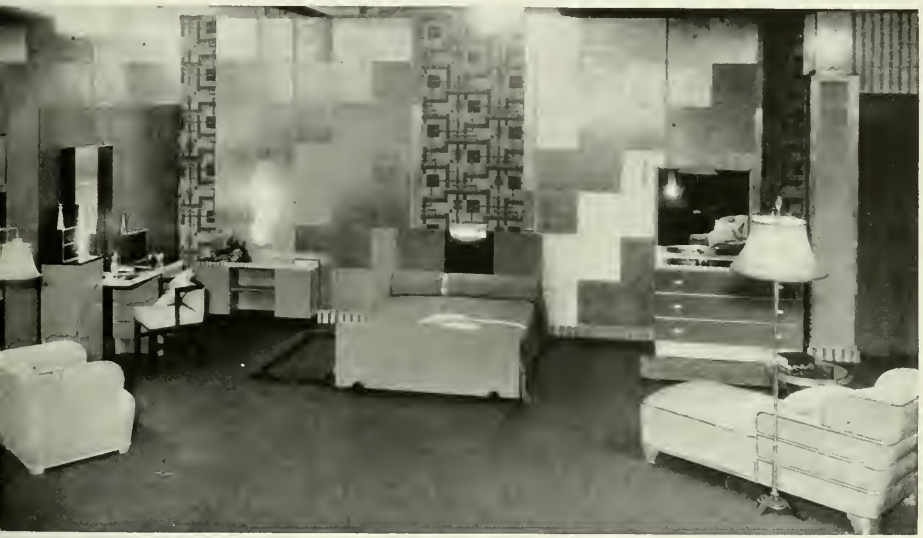
Illustrations courtesy California Monthly

of it comes from France, when as a matter of fact the best and most representative work is being produced in Austria, Germany, Denmark and Sweden.

Frequently the question is asked, "Has modern furniture come to stay?" I do not question for a second that it has. And I wish to add right here that it is not necessary for a householder to dispose of all his present furnishings in order to add a re-

aid of a modern hanging, the wall should be brought into sympathetic relation with the group. A modern cushion, vase or other accessories throughout the rest of the room will transform the whole atmosphere.

Early American furniture is perhaps the most sympathetically combined with the twentieth century pieces. Both have the same ideal of simplicity, of honesty in materials, of practicality and beauty.



MODERN ART IN FURNITURE IS SHOWN IN THIS INTERIOR

freshing and stimulating note of modern feeling. If asked to give practical ideas for introducing the modern atmosphere into an average home, I would first suggest that one completely redecorate one whole room, the dining or living room, or a bedroom. But if that is not possible, one can proceed with a room as it is. First eliminate from the room absolutely everything that is not necessary to its beauty or comfort. Take a corner or a side of the room and treat that in a purely modern manner. An independent unit can be created with a modernist table, two chairs and a lamp. If possible, with the

Some further criteria which the home builder might use in differentiating modern furniture from the old are offered by Paul T. Frankl in his amazingly interesting book, *New Dimensions*. Mr. Frankl says:

"One of the typical characteristics of furniture of previous periods has been the shape of the leg. This was more or less a decorated structural support. In most cases, the leg was carried only as far as the knee of the piece of furniture, and here it was interrupted by the case or seat. In contrast to this, the furniture leg of today runs through to the hip. This not only adds

grace, but it also gives it a constructive value by reinforcing the upper sections of the piece in question, and giving a unified solidity to the entire cabinet or other piece of furniture. It also adds a slender grace to the supporting members. The elongated, straight, slightly shaped, and extremely graceful leg is one of the new characteristics of furniture of today.

"Continuity of line is another aim of the modern furniture designer. In the designing of chairs, this is often expressed by the arm and leg being all in one uninterrupted curve. Often the back frame is continued and made one with the seat rail.

"The modern designer avoids as much as possible the squaring off of surfaces by means of panelling or framing. The tendency today is against framing. Instead of sinking a picture into a frame, we endeavor to set the frame in back of the picture, similar to the old art of carving cameos. The flat surface is our aim. Modern wood-working machines and new technical processes enable us to build up large flat unbroken surfaces. Carving may be used but it will be used sparingly and with great restraint. It should not be employed as a means of ornament, but it may, to advantage, be used as an accent or keynote much as a scarf-pin may add distinction to a plain necktie.

"The comfortable chair may be achieved in two ways: either with a shallow, rather high seat and high back, or with a decidedly low seat of great depth and comparatively low back. Our tendency toward the informal in all things makes the low, deep seat preferable.

"Loose seat cushions add to the comfort. Tufted upholstery has given way to plain surfaces, accentuating the line of construction and the beauty of the fabric used. All fringes, tassel edgings and galloons are in the discard. If the lines of the chair are simple, its beauty may be enhanced with a figured covering. But if the lines of the chair are of shapely construction, this feature of the chair can be shown to the greatest advantage by the use of a plain covering. Only a comfortable chair is beautiful. The first and last test for a chair is to sit in it."

Efflorescence on Bricks

WAYS to prevent efflorescence on bricks, both in their manufacture and in walls, are suggested in a statement given to the public by the Bureau of Standards, Department of Commerce, disclosing the results of a series of tests, in part as follows:

"For the purpose of ascertaining the various sources of efflorescence on face brick walls, 288 wallettes of face brick and mortars were constructed. Four types each of limes, Portland cements, and bricklayers' cements, and 32 types of face brick were used in making the wallettes.

"These materials were such as are sold on the market and widely used. Hence, it would be reasonable to suppose that the contribution of each material to the efflorescence on the wallette during the test would be representative of these same materials as used anywhere in a wall.

"The wallettes were set in shallow pans of water and tested for a period of six months. Water rising by capillarity tended to carry any salts from the materials upwards to the dry surfaces. Simultaneously individual tests were made on the face brick themselves.

"Fifty-three per cent of the face brick tested free from contact with mortar developed no efflorescence during the six months continuous test, but did develop efflorescence when used in the wallettes.

"In other tests of wallettes only one type of brick containing soluble salts was used, together with various mortars to which had been added different waterproofing compounds. These wallettes were tested continuously for six months by standing in shallow pans containing a saturated solution of sodium sulphate. The waterproofing material was considered to be effective if none of the salt in solution penetrated beyond the mortar joint.

"It was found that the ammonium, calcium, and aluminum stearates were equally effective and checked all penetration of salt solution through a mortar joint. The amount of these materials necessary to accomplish this is 2 per cent by weight of the cement or of the lime, or of the lime plus cement when both are used in mortar."

SOME THINGS ARCHITECTS SHOULD KNOW ABOUT IMPORTED HARDWOODS

By R. A. Curry—Architect

IN MY article last month I endeavored to give you a clear outline of the various grades of imported hardwoods and their practical uses. Now I shall dwell upon the importance of properly specifying the grades you wish to use. For example, how would you specify the hardwoods of the Shorea Spec? (tangile, lauans and meranti).

I put the above question to the senior member of one of the largest architectural firms in Southern California and his reply, by letter, was to the effect that "in some instances where we have used these hardwoods we simply called for the *'best grade of Philippine Mahogany.'* We specified the tangile brand in two of our largest buildings, because the mill advised us that this would enable us to make any selection we desired."

The term "best grade of Philippine Mahogany" used above, is much too meager and implies many varieties. It could have caused this architect a lot of trouble in the event of dispute and litigation*

Why is it that so many architects have the idea that tangile, red lauan or meranti must be of the dark red color in preference to the lighter shades, which are cheaper?

I put this question to a mill man in charge of the hardwood department of a Los Angeles lumber company.

He smiled and said: "The architects do not know that some of the lighter shades finish as well or better than the dark red shades."

He told me of the following experience he had had with a prominent architect, who, being in the soup, having underestimated the cost of a building for his client, received bids and found that the price was too high and that the client was unable to build unless some way could be devised to cut down on the cost of the interior finish. He appealed to the mill man, who, being an honest fellow, suggested that he change his specifications, which probably called for the best quality of dark-red Philippine mahogany, to read, F. A. S. grade of almon, yellow or white lauan of a good hard, even texture, fairly heavy quarter-sawn, showing a highly figured graining. (Free from pinholes in the rough.)"

The architect, having the idea that the mill man did not have the true artistic sense and was probably trying to sell him something, replied that this would be out of the question and that his intelligence need not be insulted with such a proposal.

The mill man capitulated, but in the meantime, realizing that all the different shades of color came from the same family of trees and that even tangile is only discovered after the tree is sawn and often has not the finishing qualities as that of the lighter and cheaper lauans, he handed a sample to a good painter, who gave it a single light coat of stain of the desired color and tone, with the result that it was even better in color, texture and finish than the material originally specified.

Needless to say, the architect was able to build his building, and since this experience he has known how to specify this material. He also knows that the painter is the fellow who can make or spoil the finish of these beautiful woods.

The furniture manufacturers know the tricks of finishing, for they can take the cheapest kind of pin-hole, wormy stock of white lauan, fill the holes, stain and polish it, tag it "mahogany," and sell it at a high price. The fall down, however, is in not applying the same workmanship to the inside and backs of drawers, etc., as you have probably noticed in opening the drawers in

* The U. S. Supreme Court has recently ruled that the trade must desist in using the term Philippine Mahogany. Architects should take note of this.

new furniture in our modern hotels. Here you will find that poor material has been used.

The following is my outline of specifications for woods of the Shorea Spec. of hardwoods.

"All stock used for the interior trim and woodwork (state in detail) shall be of the Shorea Spec. of hardwoods, known as either tangile, red-lauan, or red-meranti; almon lauan or meranti; white lauan or meranti (state kind you wish); and shall be of the F. A. S. 'firsts and seconds' grade in accordance with the National Hardwood Lumber Association's printed rules for inspection, and shall be free of pin-holes, visible to the natural eye in the rough; free of worm holes, grooves, burls, sap, heart rot, dote shakes and other defects. All material is to be well seasoned and kiln-dried and shall be protected from moisture and dampness until set and handed over to the painter. Texture is to be firm and close grained and any material which is of a fuzzy nature after planing or sanding or which contains any tensile cracks breaking the fibers across the grain, or any piece which contains more than one standard knot, is to be removed from the premises.

"All lumber is to be quarter-sawn and to show a highly ribbon-faced figured graining. (Unless otherwise specified.) All material is to be in accordance to architects' details and is to be cleaned, scraped, smoothed and sanded and turned over to the painter in a ready, finished condition for finishing.

"Finally: A sample of the material the contractor intends to furnish on this work shall accompany his bid, and this sample will be identified and held in the office of the architect and all subsequent material furnished on this work shall be equal to this sample in quality."

The Stanford University Department of Civil Engineering has arranged for a course of lectures on City Planning, to be given before the senior and graduate students of these two departments, during the present college year. Dr. Carol Aronovici, City Planner, has been engaged to give this course, which will consist of a series of lectures and discussions, covering the field of city planning in relation to engineering work and the arts as applied to city development.

"ARCHITECTURAL AGGRAVATIONS"

WE are just listing a few things which cause us extraordinary disturbances where our architectural sensibilities reside. You probably won't agree with us—and we'll promise not to agree with you about much of anything. It's an architectural prerogative not to agree with anything. We criticize with the calm freedom of a high-school girl and sulk at any fair description of our own faults. And so, writes "Palladio" in the official paper of the Society of Architects, here's a partial list of those "Architectural Aggravations" so far as we are concerned.

* * *

1. IT causes us great pain to see a flight of stairs where a roof ought to be. The stairs are certainly serving no useful purpose—no one would wish to use them if they could; and they don't go anywhere in particular—they just go nowhere. A roof was meant to shed water and horizontal surfaces don't shed water. Somehow we don't like misplaced stairs.

* * *

2. IT causes us pronounced indigestion to see enlarged eggcups used as finials, where no finials are needed. Besides somehow we just can't take kindly to the idea of stone eggs—particularly when they have to be exposed to the weather for future eons of time. Eggs don't weather well.

* * *

3. GABLES where there aren't any. Somehow perfectly lovely gables run up with not a thing behind them to offer as an excuse for their existence except thin, thin atmosphere—somehow such gables cause us to wonder at the difficulties of design.

* * *

4. WE just can't sparkle with enthusiasm the way we would like to, when we see a perfectly lovely Spanish design, whose inspiration must certainly have been the exotic fancies of the old Latin Country herself—a design just dripping and gushing Mediterranean, without a daub of color in the whole thing. We just imagined that Spanish sparkled and danced with a gaiety

THE WORLD'S TALLEST BUILDINGS

HERE are some interesting facts about America's largest existing buildings, ranked in their order of rentable area in square feet:

Building	City	Size of Land in sq. ft.	Height in Stories	Height in Feet	Cubic Feet	Rentable Area in sq. ft.
Furniture Mart	Chicago	113,931	34	478	28,000,000	1,514,637
Equitable	New York	48,975	43	550.6	24,000,000	1,236,000
General Motors	Detroit	190,500	15	220	20,411,000	1,125,871
Railway Exchange	St. Louis	61,550	21	250	18,898,000	1,118,683
Graybar	New York	68,300	31	400	16,000,000	1,005,000
Union Trust	Cleveland	98,000	21	260	20,000,000	990,000
Illinois Merchants	Chicago	56,564	21	280	17,850,000	887,500
New York Telephone	New York	54,484	34	486	17,000,000	857,709
Penobscot	Detroit	46,880	47	565	14,500,000	725,000
Continental Bank	Chicago	53,569	21	300	17,000,000	700,000
Terminal Tower	Cleveland	71,527	52	708	12,000,000	560,000
Insurance Exchange	Chicago	39,580	21	260	10,400,000	548,000
Woolworth's	New York	29,455	58	792	13,200,000	538,933
Fisher	Detroit	120,000	28	350	17,615,000	458,000
Straus	Chicago	27,478	34	410	10,000,000	400,000
Russ Building	San Francisco	40,837	31	435	8,844,000	355,116
Union Central	Cincinnati	15,000	39	495	5,174,000	225,333
L. C. Smith	Seattle	12,100	42	497	2,607,056	174,000

The Editor has inserted the Russ building, San Francisco, which ranks third from the bottom of the table. This building does not appear in the list compiled by McMichel & Bingham in their publication "Essentials of City Growth," and from which the above information is taken. San Francisco Chamber of Commerce might start an inquiry.

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of colors—and we're almost sure it wasn't expressed in terms of lily white bathroom architecture.

* * *

5. IT is an aggravation to eye-sight and a strain to the rear neck muscles to see an unreadable inscription across the parapet of a building, or a bit of ornament so tiny in scale as to be utterly lost, gracing the topmost reaches of a high building. It may be lovely, but we don't know it. What a severe master in the matter of design is Scale.

* * *

6. IT occasions no little mental agitation for us to note a rather heavy and cumbersome stone cornice cantilevered out over the sidewalk, its center of gravity far out beyond the building line. It is particularly irritating when we know that this stone cornice is retained in place purely by the ultimate tensile strength of light steel ties. You know in time steel does corrode, and its tensile strength is in inverse ratio to the passing of time—well, we'd rather walk on the other side of the street.

Height in feet of other imposing world structures are:

Eiffel Tower, Paris	999
Metropolitan Tower, New York	700
Singer Tower, New York	612
Washington's Monument, Washington	556
American Insurance Union, Columbus	555
Bankers' Trust, New York	539
Philadelphia City Hall	535
Cologne Cathedral	512
St. Stephen's, Vienna	470
Great Pyramid, Egypt	451
St. Peter's, Rome	433
Adams Express, New York	424
Whitehall, New York	424

The limits in the larger American cities, in effect in 1928 were:

Chicago	264 feet
Los Angeles	150 feet
Atlanta	300 feet
Cincinnati	264 feet
Cleveland	250 feet
Detroit	No limit
Hoboken, N. J.	180 feet
Kansas City	180 feet
New York	2½ times street width
Philadelphia	No limit
Pittsburgh	265 feet
San Francisco	No limit
St. Louis	250 feet
Seattle	2½ times street width

MY EUROPEAN IMPRESSIONS

By
C O Clausen Architect San Francisco

X. THE APPIAN WAY

THREE hundred years before Christ, the Roman Emperor Appia Claudius built the famous Appian Way from Rome southward to Capua. Many portions of this road are still in actual use today.

Being a sort of sentimental traveler, I could picture the Roman Legions returning home in triumph over this road toward the gates of the city and there met by the Senate in festal robes and conducted, with their prisoners of war and their spoils, to the Forum to participate in the celebration of victory.

For some distance outside the walls the Appian Way was once lined with many monuments and tombs, but few now remain, the largest and most prominent being the tomb of Cecilia Metella, daughter-in-law of Crœsus, the wealthiest man of his day and a member of the First Triumvirate with Cæsar and Pompey. This mausoleum is a circular structure 65 feet in diameter with walls 20 feet thick, and was built 60 years before Christ. The frieze which runs around the building is carved with ox skulls and festoons. The portion above the entablature was added in the thirteenth century, when the structure was converted into a stronghold and furnished with battlements around the top, which still remain.

TOMB OF CECILIA METELLA, ROME

Off in the distance lie portions of the great Claudian Aqueduct, which once led water to Rome from the Sabine hills. Some of the arches are over 100 feet high and run in broken lines over the compagna.

Further along the Appian Way is the entrance to the Catacombs, the underground burial places of the early Christians. The Catacombs consist of tunnels averaging five feet wide and from six to twelve feet high, hewn out of soft rock with recesses on each side forming tiers of burial places. Altogether there are over 900 miles of these tunnels, making an almost endless labyrinth running in every direction and frequently ending in chambers used as family vaults or chapels. It is estimated that eight million bodies were once interred here, but the place has been ransacked and plundered so much that it is now almost entirely divested of its monuments and dead. Some of the inscriptions and relics, however, have found their way into various museums and from them we get an idea of early Christian Art. The Catacombs have furnished countless bone relics used in many churches throughout the world as having miraculous healing powers of various degrees. It is said 2300 skeletons were carried off at one time and in another instance 28 wagonloads of bones were taken from the Catacombs.

PORTFOLIO

of the

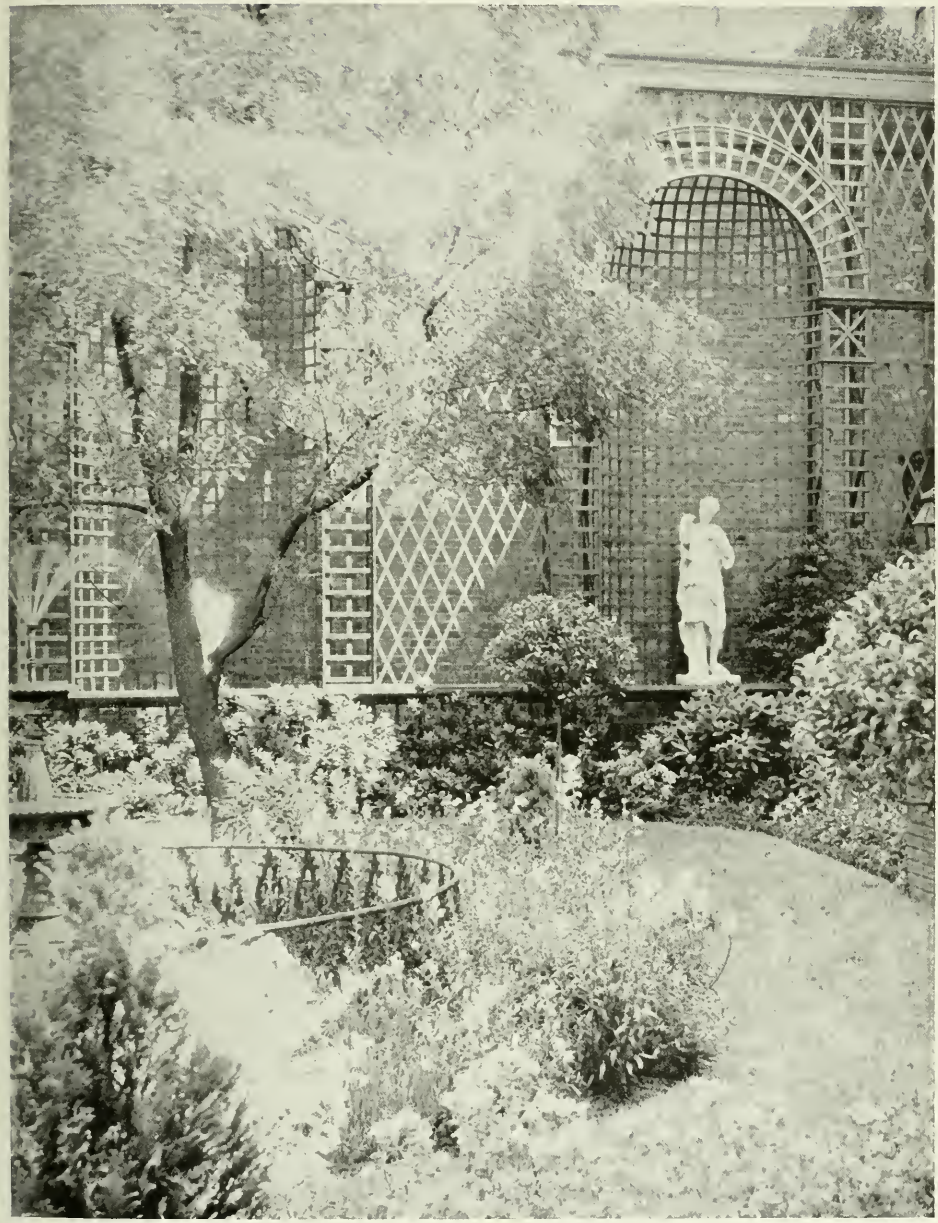
WILLIAM SPROULE GARDENS

SAN FRANCISCO

Bliss & Fairweather — Architects

Photos by Jas. J. Morris and Andrew S. Petrishin

GARDEN OF MRS. WILLIAM SPROULE, SAN FRANCISCO

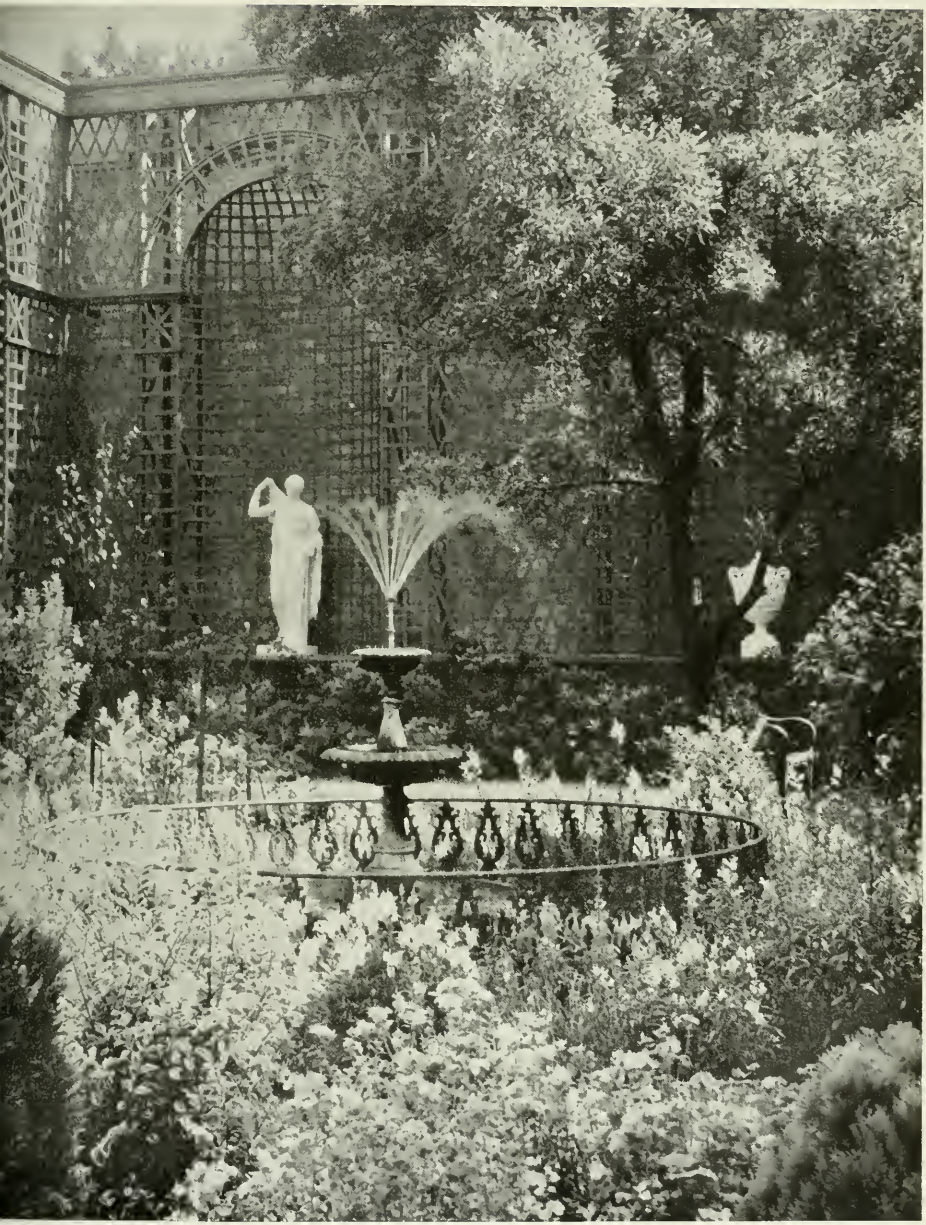


PATHS ARE FRINGED WITH LOVELY BLOOMS

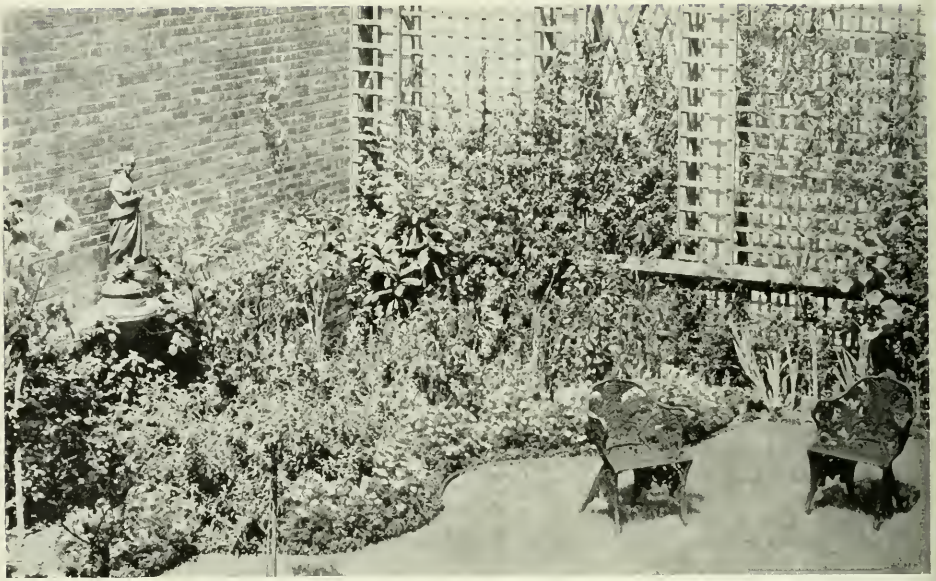
ITALIAN MOTIF BLENDS WITH GARDEN PLANTS

BRICK WALLS AND ORNAMENTAL IRON CONTRIBUTE TO GARDEN SETTING

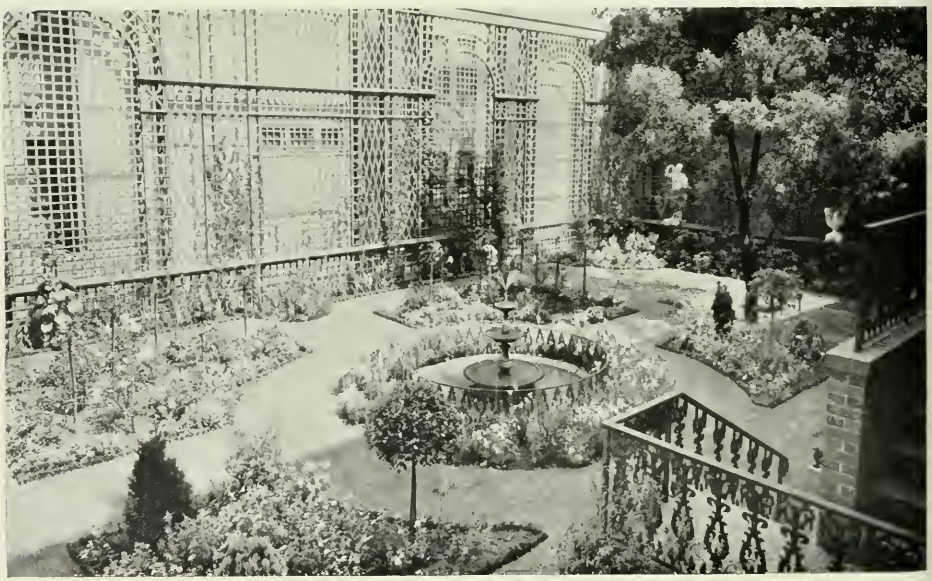
WHERE CRAFTMAN'S ART VIES WITH NATURE



COOL FOUNTAIN 'MID FRAGRANT BLOOMS



COMFORTABLE RUSTIC SEATS WHERE ONE MAY SIT AND ENJOY NATURE'S HANDIWORK



LATTICE FORMS PLEASING BACKGROUND FOR GARDEN SETTING

CALIFORNIA SEEKS the ARCHITECTURAL TRUTH

By Mark V. Goodnow

IF the aphorism, "the truth shall make you free," may be considered from its architectural aspects, then California must some day become a free state. For it is doubtful if in any other section of the country is there a livelier interest in or discussion of architectural styles best suited to the peculiar climate, setting, topography and living conditions within a state—or more evident seeking after the truth as it is related to house designing and planning. And certainly there is no field in which the activity of the architect is more apparent and (to give the devil his due) no professional group so constant in the winning of competitions.

Where many factors govern conditions of life, both in and out of doors, and where there is a considerable in-gathering of people representing eastern and middle western America, one would naturally expect to find a great diversity of taste and opinion, especially in matters so intimate and individual as those of home planning and building. It might also be expected that with from 700 to 1000 practicing architects within her borders, California should occasionally consider her heritage and destiny in domestic architecture just as she has in agriculture, foreign trade—and the production of motion pictures.

But the subject of architectural style has passed from the point of mere interest into an active stage in which there has developed a concerted sentiment not only seeking the truth, but attempting to safeguard the state's Spanish tradition against the invasion of other period or national styles that threaten, from time to time, to disrupt or retard the gradual evolvement of a well-ordered California style. In fact, the Spaniard himself could not be more jealous of his heritage than certain champions of Spanish or Mediterranean architecture in this state.

Fifteen years ago, California, then almost universally regarded as a land for a pleasant holiday, was largely controlled by the tourist influence. The entire state, in fact, was in the "catering" business, and the man from the east or middle west got what he wanted if he had the money to pay for it. Even in the matter of houses, he was wont to dictate, and the resulting landscape showed that his desires did not go unsatisfied.

For example, if the *emigre* who cast his lot as a permanent resident hailed from New England, he forthwith reproduced a Colonial house; if from Georgia his preference was for a Southern home with long white pillars and outlying buildings. Or, if from the middle west—well, he transplanted his ideas of home, whatever they were, and became a highly respected property owner. If he had no architectural predilections it was an easy matter for the "jerry builder" to build for or sell him a house known as a California "bungalow" or "chalet," which embodied many eastern ideas, to be sure, but which appealed to the newcomer as being just a bit different in atmosphere. The fact that California was and is just as distinctive as New England or Georgia or the middle west did not impress him. He felt no obligation to remember that those elements that produced the type of house in another part of the world

EDITOR'S NOTE—The jealous guardianship of domestic architecture which many of our California architects are wont to exercise is most commendable, and brings up for serious discussion the subject of a correct native architecture. Undoubtedly, our architects are beginning to crystallize their sentiments along a rather traditional channel—that of the purely California type house. Of course, all do not agree, as attested by their work in English and Norman vein, but it would seem that the feeling is growing definitely toward a native type as *the one* entirely suitable for this country. In the article on this and succeeding pages, Mr. Goodnow reports this architectural trend without bias or color.

were not elements of his new home. He knew little or nothing of the Spanish tradition, except as it touched his interest on a sight-seeing tour of the old missions.

In other words, his heart was not in California; he was still in that class of people whom our present schools of architecture sometimes dub the "architectourist"—the man from elsewhere who really spoiled the California landscape. Not until he became acclimated and fully apprized of the state's romantic heritage did he sell his misconception and begin to build himself an entirely different type of house—one that can be said to approach if it does not reach the full requirements of the character of setting, the climate and the romantic elements dating back to the life and work of Fra Junipero Serra of mission fame.

As a constantly fluctuating class the "architectourist" is still difficult to control, which accounts in large measure for the somewhat loquacious character of California's—and particularly Southern California's—varying architectural sentiments.

With the comparatively recent swing in public taste to period styles, English, French, Italian, Belgian, Norman, those professional guardians of public taste in domestic architecture once more view with alarm the tendency to undermine the foundation of California's traditional house design, which they sometimes vehemently proclaim should be "only Spanish." The danger of a repetition of the old days has even developed a number of champions who would prefer that the eastern and middle western ideas be kept out of California altogether and that the home builder forget the existence of any style but Spanish or its Latinized modifications.

With members of this school the Colonial house has absolutely no place in this semi-tropic country with its palm and pepper trees, its ocean outlook, its hillside eminences, its all-year vegetation, its periodic dryness and its general resemblance to the Mediterranean Riviera. In the matter of setting, particularly, the Colonial house is considered inappropriate for either the hillside or ocean view lot, and on level ground its surroundings may be anything but typical of the country to which it was adapted from the Georgian type of house.

The English type fares little better in the hands of this school, though no less an architect than Reginald D. Johnson himself finds an appropriate style in a combination of the livable quality of the Georgian house with the romantic quality of the Spanish, like those houses of Monterey, for example, which seemed to solve the question of a background for American furniture while at the same time offering a picturesque surrounding.

In a country where rainfall is restricted to three months of the year and where the average precipitation is hardly above 15 inches, the architect quarrels with the pitch of the English roof. And this same objection he levels at the French, Belgian and Norman houses, although there are many quaint examples of such houses in the southern part of the state. Pierpont and Walter S. Davis created something distinctive in their French village in the Hollywood Hills, and more than one Norman-English residence is an outstanding cynosure in various hillside subdivisions of Los Angeles.

The Italian seems to fare better, particularly as it conforms to an accepted style for hilly terrain and for the site that affords a view of the ocean. But while not entirely usurped by the wealthy home builder, the Italian house in Southern California at least is largely a style for the more expensive city lot or the estate in which grounds or site are of sufficient breadth and depth to provide a rich setting.

If one were looking for further evidences of the architectural cosmopolitanism of Southern California he might easily discover examples of the Persian, Moorish, Hopi Indian, Aztec and even the Egyptian type house. But such styles are notable principally for their extreme novelty, and will never be strong contenders for public favor because of that fact.

As evidence of the eternal fitness of the Spanish house, the skeptic is referred to more than a dozen cities and near cities, as

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WARNER BROS. NEW THEATRE

HOLLYWOOD

G. Albert Lansburgh - Architect.

IN the design of Warner Bros.' new Hollywood Theater, the architect, G. Albert Lansburgh, has avoided all the banalities and conventions that have heretofore been offered the public, and in his conception has given evidence of a broad vision and romantic atmosphere.

In character, the building is of Plateresque Spanish architecture. From the lobby to the stage, the public has surprises and reactions that cause a thrill. Since its opening the theater has enjoyed phenomenal success, proving that good architecture will endure where freakish compositions soon become tiresome.

One of the main novelties, and an extraordinary monumental feature of the building, is the grand Reale, or ambulatory, 22 feet wide and 25 feet high, surrounding in circular form the auditorium proper, from which some thirty exits lead to the courts and the two street fronts, and making the theater one of the safest edifices of its kind in the country. From this ambulatory, artistic stairways and a spacious elevator lobby lead to the balcony, cross aisles and foyers. The circulations are remarkably spacious and free from obstructions, which tend not only to safely, but conveniently evacuate the house of its 3000 spectators.

Innumerable conveniences are approached from the ambulatory and foyers, such as men's and women's smoking rooms, cosmetic rooms, emergency hospital and rest rooms. In the basement is one of the most delightful lounges and smoking rooms to be seen in any theater, and from off this room is a children's playroom with all its conveniences. Here a special trained nurse is on duty constantly. Adjoining the lounge is a large preview room for the inspection of pictures by the management and friends.

The auditorium proper is a vast Spanish interior court, apparently opening to the sky and surrounded by a magnificent colonnade through which pictorial vistas may be seen, thus enhancing the atmospheric beauty of the theater. The murals, in fact the decoration of the entire theater, were done by Albert Herter, whose great murals in Paris and talented portraitpaintings have brought him international

LOUNGE, WARNER BROS.' THEATER
G. Albert Lansburgh, Architect

MAIN FLOOR PROMENADE, WARNER BROS. THEATER, HOLLYWOOD
G. Albert Lansburgh, Architect

prominence. His color palette has put to shame the garish and amateurish endeavors heretofore thrown in the face of the discriminating public. The curtain itself is a masterpiece of decorative art, and, as a note in the composition, will be a joy to the patrons while awaiting the productions on the stage.

The stage is the second largest of any theater in Los Angeles, and is so arranged and so equipped as to be used for any form of theatrical production from pictures to grand opera. The stage quarters include not only the dressing rooms, troupe rooms and managerial offices, but a thoroughly equipped scenic studio in which the sets may be built up and housed.

No expense has been spared in the lighting installation. This is entirely an indirect illumination in four colors. One of the remarkable features is the constantly changing cloud effects in the sky-like ceiling. Every phase of the ever-changing light effects of the twenty-four hours of the day is possible with the installation adopted, not only on the stage but in the auditorium proper.

A complete mechanical equipment for cooling and heating has been installed for the comfort of the audience. In the winter the air is washed and heated to the desired temperature, and in the hot summer days, the air is cooled by refrigeration and drops the temperature 18 degrees below the heat of the pavement outside.

The illumination of the auditorium is in three colors, obtained principally from concealed cove lights and floodlights. A mammoth dome forms the main ceiling. This dome is 112 feet in diameter and 10 feet deep. The cove lights extending around

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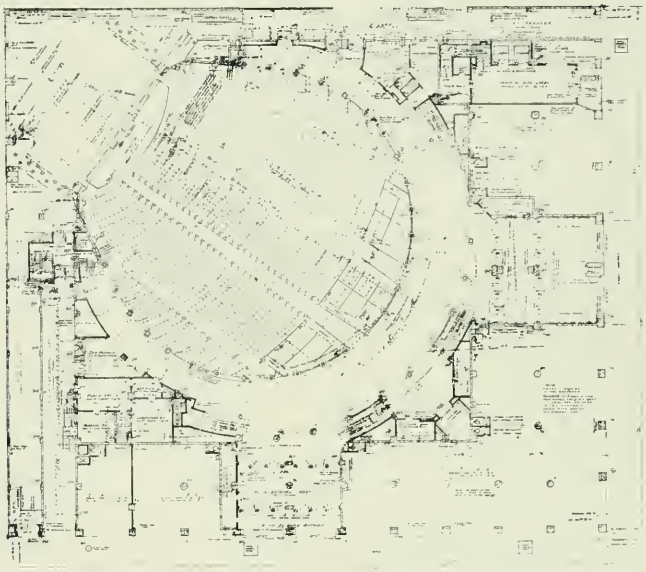
Photo by Keystone Service

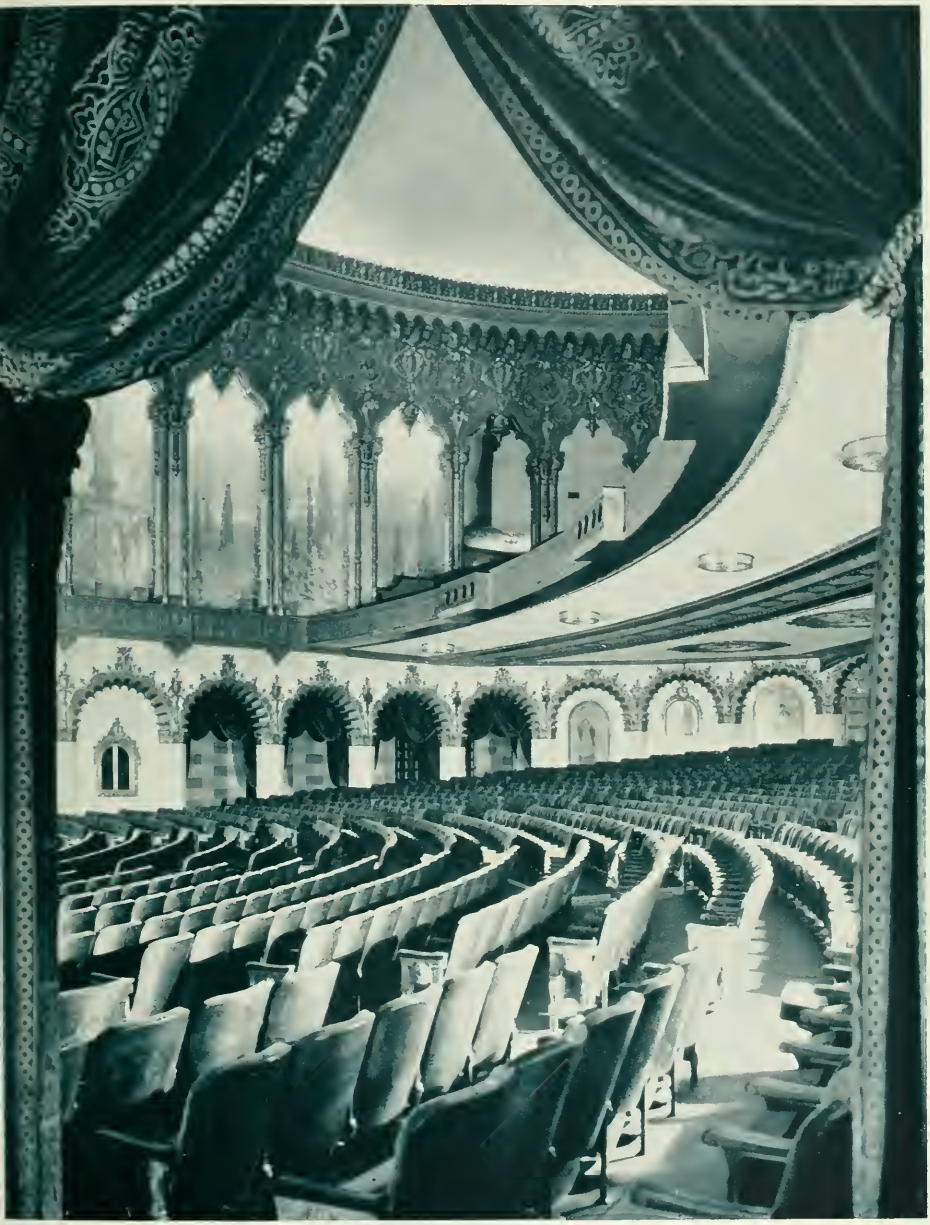
PROMENADE, WARNER BROS. THEATER, HOLLYWOOD
G. ALBERT LANSBURGH, ARCHITECT



FIRST FLOOR PLAN, WARNER BROS. THEATER, HOLLYWOOD
G. ALBERT LANSBURGH, ARCHITECT

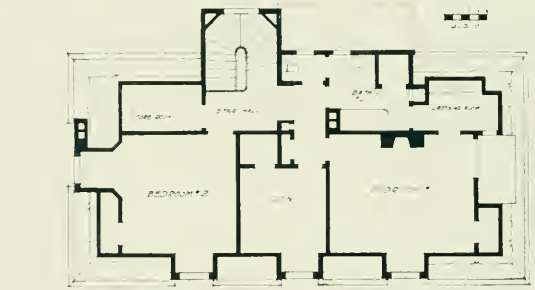
PROMENADE TO MAIN ENTRANCE, WARNER BROS. THEATER, HOLLYWOOD
G. ALBERT LANSBURGH, ARCHITECT

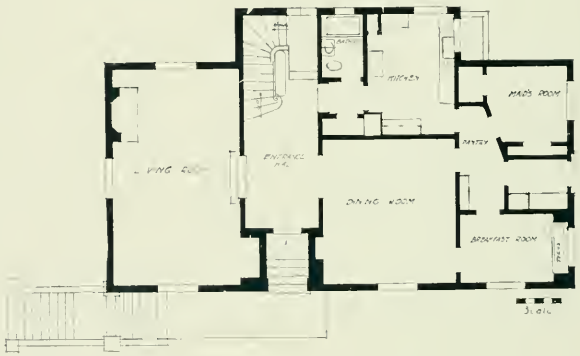
DETAIL OF MAIN STAIRS, WARNER BROS. THEATER, HOLLYWOOD
G. ALBERT LANSBURGH, ARCHITECT



AUDITORIUM SIDE WALLS, WARNER BROS. THEATER, HOLLYWOOD
G. ALBERT LANSBURGH, ARCHITECT

HOUSE FOR MR. A. MEYERS, ST. FRANCIS WOOD, SAN FRANCISCO
WILLIAM I. GARREN, ARCHITECT





PLANS, HOUSE FOR MR. A. MEYERS, ST. FRANCIS WOOD
WILLIAM I. GARREN, ARCHITECT

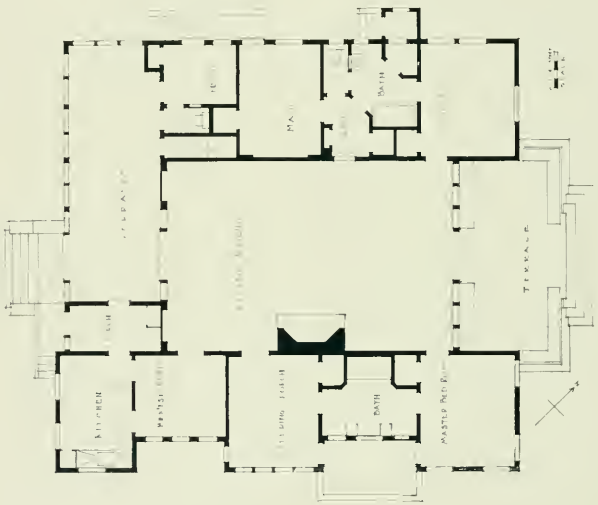
Photo by Roger Sturtevant

HOUSE FOR MR. A. MEYERS, ST. FRANCIS WOOD, SAN FRANCISCO

WILLIAM I. GARREN, ARCHITECT

HOUSE FOR MR. S. KAUFMANN, ATHERTON, CALIFORNIA
WILLIAM I. GARREN, ARCHITECT

Photo by Roger Sturtevant



PLAN HOUSE FOR MR. S. KAUFMANN, ATHERTON, CALIFORNIA

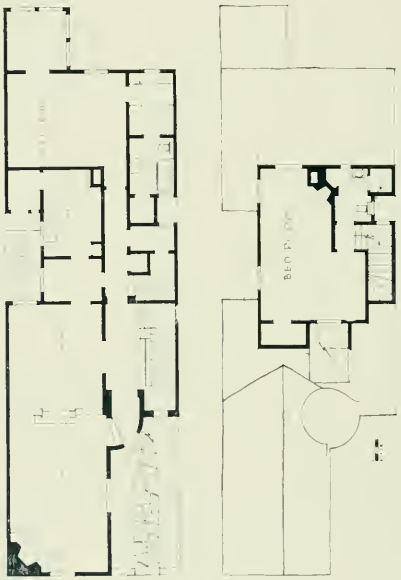
Photo by Crandall

HOUSE FOR MR. S. KAUFMANN, ATHERTON, CALIFORNIA

WILLIAM I. GARREN, ARCHITECT

Photo by Roger Sturtevant

HOUSE FOR SOPHIA MOLLER, SAN FRANCISCO
WILLIAM I. GARREN, ARCHITECT

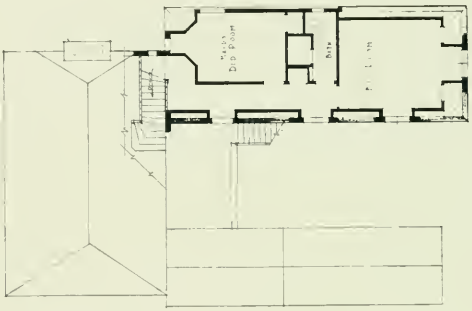


PLANS, HOUSE FOR SOPHIA MOLLER, SAN FRANCISCO
WILLIAM I. GARREN, ARCHITECT

Photo by Roger Sturtevant

HOUSE FOR WILLIAM I. GARREN, BERKELEY, CALIFORNIA

WILLIAM I. GARREN, ARCHITECT



HOUSE FOR WILLIAM I. GARREN, BERKELEY, CALIFORNIA
WILLIAM I. GARREN, ARCHITECT

to by Roger Sturtevant

HOUSE FOR WILLIAM I. GARREN, BERKELEY, CALIFORNIA

WILLIAM I. GARREN, ARCHITECT

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WILLIAM I. GARREN, ARCHITECT

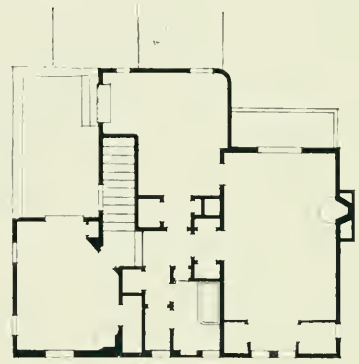
HOUSE FOR WILLIAM I. GARREN, BERKELEY, CALIFORNIA
WILLIAM I. GARREN, ARCHITECT

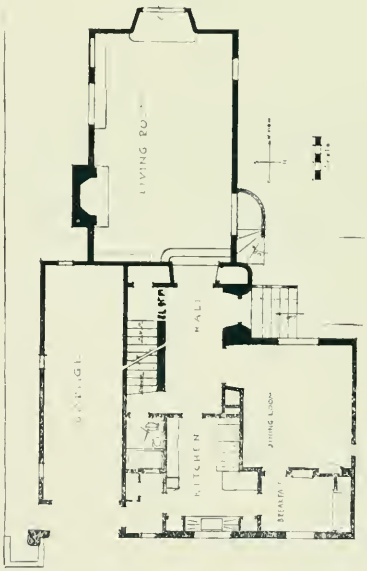
HOUSE IN PIEDMONT, CALIFORNIA
MORROW AND GARREN, ARCHITECTS

PLANS, HOUSE IN PIEDMONT, CALIFORNIA
MORROW AND GARREN, ARCHITECTS

HOUSE FOR MR. H. D. NICHOLS, PIEDMONT, CALIFORNIA
MORROW AND GARREN, ARCHITECTS

Photo by Roger Sturtevant




LIVING RO
HALL
KITCHEN
BREAKFAST

SOME RECENT EXAMPLES OF GLADDING Mc BEAN & CO TERRA COTTA WORK

CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS, MESA, ARIZONA
YOUNG & HANSEN, ARCHITECTS

CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS, MESA, ARIZONA
YOUNG AND HANSEN, ARCHITECTS

PACIFIC TELEPHONE & TELEGRAPH BUILDING, PIEDMONT, CALIFORNIA

E. V. COBBY, ARCHITECT

CALIFORNIA SEEKS ARCHITECTURAL TRUTH

[Concluded from page 64]

well as mere residential communities, in which the Spanish-Californian house exemplifies all of the desirable features of home life and in which an architectural jury sits in judgment upon the home of the newcomer and eliminates with free hand all designs that so much as evidence anything but Spanish or Mediterranean influence. They point out the success of these subdivisions and communities, among them the Palos Verdes Estates, Rancho Santa Fe, Montecito, San Clemente, Hollywoodland and others, founded largely upon the careful restriction of the use of property and of the type of domestic architecture.

These communities have at least proved that good domestic architecture has financial value, that the house appropriately designed to fit its setting attracts people who not only appreciate distinctive appearance, but who are willing to pay for the care and skill required to produce it. The Southern California subdivider has learned to make capital of the Spanish idea in the houses he promotes on his tract, just as other interests of the state have utilized the Mission idea as a marketable name for hotels, theaters, candy, cafeterias, hosiery, trolley trips and other commodities or services.

Of course, one does not expect all the architects of the state to be in complete agreement as to what should be furthered as a typically Californian house; and in this respect he is not disappointed, for the leaders do not altogether agree. But there is sufficient accord to account for a considerable body of sentiment which undeniably is having its influence on the "architectourist." It is gradually but effectively educating him in matters of tradition and precedent to the end that his house may be more suitable and comfortable, and, eventually, prove a better investment.

In the words of one architect, "what the newcomer needs to know is that the whole reason for our Spanish tradition is that we have similar fundamental problems to solve. Our mode of living is not the same as the Spaniard, of course, but our views of mountains and sea, our natural vegetation, our sunshine and our materials are identical with those with which our forbears contended. Therefore, we must not copy the peculiar conditions of the past, but find inspiration in methods employed in former times.

Elmer Grey, another architect who has worked much in this same medium, voiced a similar expression with more liberal strain by saying that "though Spanish tradition does not mean that we must all build Spanish houses, it does mean that whatever style we adopt may well be so modified as to conform more or less with the Spanish spirit. It is a case where many different voices may sing or instruments may be used, if only they will sing or play in tune."

The matter of a fixed style of home architecture in California is not so easily settled. A question on this point, put to several prominent architects, elicited a variety of answers but also led to a definite conviction that such a style is at least in the making.

Harold O. Sexsmith, a past president of the Los Angeles Architectural Club, believes that "if we are to pick a typical California style, the one chosen must not only satisfy the requirements of good architecture, but those of climate as well. There is a type of house which fulfills these requirements. Its design is inspired by the Italian, Spanish and Mexican. With these as a precedent, the architects of this region have started to evolve a true California type.

"For want of a better name," he continued, "we might term it California-ized Latin. It is in no sense a fixed or completed style, but is growing and changing constantly. It is already designated as a real and lasting contribution to American domestic architecture. The American Institute of Architects, in fact, has been pleased to recognize by appropriate awards the work of local architects as among the best current work in the United States. With a growing public recognition of their abilities, California architects will produce a true California style which will be appropriate to our climatic peculiarities."

In commenting upon the development of

architectural styles in California, Reginald D. Johnson, an architect whose work is almost as well known in Florida as on the Pacific Coast, remarked that during the past forty years in California, or since the days of the so-called "ginger bread" period, there has taken place a most interesting architectural development and search for architectural styles truly Californian.

"The range in architectural styles as developed by this movement," said he, "has been almost unlimited, and surely no section of any country can equal in variety the attempts which have been made to solve this problem. We are still daily confronted with various examples of these efforts in design, ranging from the would-be cozy Chinese bungalow with its painted tin tile roof to the Mission garage with its all-important campanile. While this has often been painful to watch, it nevertheless has not been without interest, and now that we are apparently passing through the extreme jazz plaster and vari-colored shingle period there are indications on all sides that we are settling down to two more or less distinctive types, and the development of one general style is probably not far distant."

The two types to which he referred are the Mediterranean and the English, and the one style which he expects to be generally adopted is a fusion of the two, as in the Monterey example, already cited.

The work of many other architects of the state shows quite plainly their own conception of a California style, with generally a closer adherence to the purely Spanish than Mr. Johnson's comment would indicate. One of the most outstanding of these efforts is that of George Washington Smith of Santa Barbara, whose distinguished work in both Florida and California has won him national recognition, and who is frequently credited with having approached as near to the ideal in creating the Spanish house of former times, but of modern utility, as any architect in the state.

It would require a presumptuous chronicler, indeed, to choose from among the many architects of the state just that one whose genius will finally mould together in one composite conception a house that will stand as truly Californian. But from them all is coming at least some contribution to a general architectural feeling, the beauty and traditional quality of which has set a distinct style, and one that has many copies. Piracy, however, seems to cause no quarrel, for, as one architect expressed it, "a copy of a good thing is better than a poor original"—and the idea is general that if a style is true enough to be widely copied it must have elements that will last as long as the state itself.

Christmas, 1928

Far distant, on some shimmering pagan hill
Faint hearted man evokes his changeling dream
Whilst at his feet
Sprung from the quickening life of his heart-beat
Arises sheer
The mighty bulwark of the house of God.

J. B. Benedict, *Architect*

The ARCHITECT'S VIEWPOINT

¶ *The Pacific Coast's Opportunity.*
¶ *City Planning on the Coast.*
¶ *Tradition and the Modernistic Movement.*
¶ *The Small House—Is it Architecture?*

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WHEN the American Institute of Architects followed its discovery of the Pacific Coast by holding a Convention in San Francisco in 1910, one of its distinguished members compared the Pacific Coast's architectural opportunities and accomplishments with those of the East by saying with reference to these eastern achievements: "We expect that and more." What has the Pacific Coast done in the eighteen years that have elapsed, in its new field of freedom and promise, to fulfill these expectations?

* * * *

ARCHITECTS and others living in our congested eastern communities who believe in the efficacy of a plan, naturally think of the new and undeveloped city as offering a wide opportunity to so guide the city's future development as to save it from the deplorable conditions occasioned by a hap-hazard growth too late to remedy. When our critic from the East was heard from in 1910, our cities on the Pacific Coast appeared to offer a promising field for effective city planning. San Francisco, with unswerving optimism, was recovering from the catastrophe of 1906 when her vast fire-swept area appeared to present an opportunity for the "Burnham Plan," or other provision for orderly and appropriate rebuilding. Los Angeles was rapidly expanding into open, unplatted territory and Seattle and Portland were realizing the iniquities of their early platting and making city plans which offered strong hopes that these evils would be corrected and the future growth follow a more sane and logical system.

The planning of cities, although as vital in principle as the planning of buildings, has inherent difficulties in its accomplishment. While San Francisco did have a vast vacant area extending over her commercial and business districts, property lines were still there, the rights of property owners still existed and the necessity for haste in rebuilding did not permit of the lengthy process of putting into effect a city plan.

San Francisco's energy and optimism, however, produced other distinguished results in civic planning. Six hundred and thirty-five acres of unfilled and unproductive shore lands were transformed into an exposition development which for planning and general effect challenged the world to produce its equal, and with this exposition building, the same energy and optimism produced a civic center which, for effectiveness, has not been approached in the United States.

Los Angeles should have had a plan, but was growing too fast, and has only recently been pausing to seek relief from her traffic ills and display her civic pride in civic center plans struggling for recognition. Seattle and Portland had made their city plans. Although Seattle's proved too formidable for her citizens to adopt in its entirety, many of its provisions have since guided the development of the city, wisely directing the expenditure of many millions in solving the planning problems of this great commercial center.

* * * *

PASSING from group planning and considering architectural expression in individual buildings, the Pacific Coast might be expected to produce work freer from the conservatism which is supposed to dominate the East. Tradition wisely influenced

uilding in these new communities and how well it could be applied was evidenced in he San Francisco Exposition, where the beautiful effects of form and color with modern ıethods of illumination took full advantage of the planning and environment to pro- uce commanding results. In the Civic Center, in the place of evanescent exposition tructures, we had buildings of a permanent character, monumental, with an appropri- te attempt to preserve a cornice line—the modernistic movement had not appeared to ripe out the cornice—giving us an exposition of how well historic styles could be dapted to our modern problems. The City Hall, with the "same old dome," admir- bly expressing the majesty of the City and County of San Francisco. The Library, nce attacked as a copy but rather a beautiful adaptation, worthy of its setting in this ıonumental group. The State Building between, a beautiful expression of the Italian enaissance with subtle optical refinements in plan and elevation, and lastly, the Audi- ɔrium, effectively planned and well located to serve its purpose.

A new community would appear to offer fertile ground for the propagation of a ıodernistic movement, but how sanely has the Pacific Coast responded to this revolu- ionary handling of tradition! How different from the exuberant excesses we now find ı modern Europe, the home of tradition, are the sane and sound developments in archi- ectural design found on the Pacific Coast, particularly as applied to the high building vhich has been emancipated from the effects of the illogical cornice and is giving free xpression to verticality with appropriate and harmonious detail! Such buildings as the Telephone Building in San Francisco, the Hollywood Storage Company Building in Los Angeles and now the Northern Life Tower in Seattle, with others admirably carry ut true architectural conceptions of the problem.

* * * *

IT SEEMS a violent contrast from monumental groups and buildings to the small house which brings architects in contact with the daily lives of many millions of ur citizens who form the backbone of our social structure. The architect's viewpoint enerally throughout the country regarding this field of architecture is that he "isn't nterested." His mind being occupied with larger and more remunerative opportuni- ies, he leaves the small home owner to do what he can without his professional assistance. Apropos of this, attention might well be directed to the following remarks made by one ıember of the profession at a meeting of the Architects' Small House Service Bureau, vhich has been trying to meet the need for architectural expression and service in this ınprofitable field of architectural practice.

"The Small House—Is It Architecture? Does it deserve to be classified in the cata- ɣory and receive the attention of the architect or can he wash his hands of all respon- ibility and relegate it to the designing contractor to be abused as has been the practice, ɔr should it be considered as important as its big brother, the apartment house and ıotel, and be given a chance? Assuming that it is architecture, isn't it about the most mportant to ninety per cent of the American people? Does it not affect the lives of nore of us and mold our tastes more than any other classification of building? If this s all true, then is it asking too much of the architect who feels his obligation to soci- ety, to find some solution for the small house problem?"*

This is a question to be answered by both architect and building public. Shall the ırchitect leave the small house to those who cannot call themselves "architect" under he license laws, and definitely in the hands of a "Designer and Builder," and can the ɔuilding public afford to eliminate the architect from one class of building with which hey are most intimately associated throughout their daily lives? If architecture is to ontinue to be an expression of the life of the people, can we defend this attitude of con- ining architectural efforts to the more spectacular productions, the civic plan or monu- nental building?

CHARLES H. ALDEN, F. A. I. A.

* In response to numerous requests, THE ARCHITECT AND ENGINEER will publish its first Small House Number in January. Pictures and plans f more than 25 houses will be shown.

The ARCHITECT AND ENGINEER

SINCE 1905

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Vol. 95 DECEMBER, 1928 No. 3

City Planning Act

IN announcing publication in printed form of "A Standard City Planning Enabling Act," the Department of Commerce reports that, with more than 530 cities and towns which it has found to have planning commissions, including more than 200 out of the 300 largest cities, there has been a growing need for carefully devised legislation to enable city and regional planning to be carried out with the best results. It is pointed out that the extent to which planning commissions succeed in promoting early and efficient physical development of land, affects, in no small degree, the return in terms of practical usefulness, now and for years to come, of several hundred million dollars of taxpayers' money spent annually, for public improvements, as well as the value and serviceability of new private construction costing several billion dollars each year.

In a foreword to the pamphlet containing the city planning enabling act, the Department of Commerce states:

"A State Legislature, in adopting such an act, grants to cities the authority deemed necessary for effective planning and prescribes certain conditions as to planning organization and procedure.

"The advisory committee members have each had many years of first-hand experience in coping with local planning problems, both as local citizens and in connection with the leading national business, professional, and civic groups which they represent. During their three years' work in drafting this act they have made laborious researches into legal problems and have consulted with expert planners, members of planning commissions, municipal officials, and other interested persons throughout the country.

"The report recommends, first, a clearly defined permanent planning branch in the local government, in the form of a commission which formulates a comprehensive plan and keeps it up to date. The commission then advised the legislative and executive branches of the municipality, and the public, as to the importance of the plan and promotes conformance to it in the laying out of new streets, the construction of public works and utilities, and the private development of land. Close attention was given to every detail here, as elsewhere in the act, that would help make good planning popular and effective.

"The sections devoted to control of new subdivisions are framed with careful regard to constitutionality and aim at procedure which will promote harmony and justice in all relations between the planning commission and the private landowner. The part relating to control of buildings in the bed of mapped streets involved much laborious original work on a special problem.

"The portion on regional planning presents the primary need for bodies to study and define regional problems comprehensively as the first step toward solving them. This procedure tends to forestall mistakes and prevent the gradual growth of conditions that may call for hasty, emergency solutions at extra expense. Regional problems should be thoroughly analyzed and publicly discussed before supplementary or new regional forms of government are set up to cope with them."

Warning to Engineers

A WARNING as to the dangers of altering or reconstructing old buildings without careful examination of foundation and structural conditions is afforded by the collapse of the Chicago Club Building, 42 years old, says the *Engineering News-Record*. Apparently the old structure was in excellent condition, yet on a quiet Sunday morning the greater part of the interior collapsed. Failure of corroded beam connections seemed at first to be a probable cause. Careful study, however, revealed the complete failure of the footing of an interior column, a pedestal of rubble stone in lime mortar that had largely disintegrated and a base of concrete that could be dug with a shovel. Furthermore, the footing rested on a bed of soft clay subject to periodical flooding from old and inadequate sewers.

Whether the excavation for the foundation piers of the new building alongside caused slipping or settling in the mass of clay under the old building cannot be known, but it is at least a possible factor in the collapse. In spite of careful excavation, voids may be left outside the lining, into which the clay will flow gradually. There is a strong warning in the accident for those who have to deal with old foundations.

Five Days Shalt Thou Labor

IT looks as if the coming year would see many of the building trades working on a five-day-a-week schedule.

The latest demand of over a hundred and twenty thousand building trades mechanics in the United States is for a five-day, forty-hour week with a 10 per cent increase in pay. This is a rather large order, and it is doubtful if it will be filled without a struggle on the part of the Employers' Associations.

Basically, says *Architecture,* the problem is economic. If general business and building demands warrant the increase the building trades will get their raise. If the price paid for labor of any sort is out of line with what the builder gets for his finished product, stagnation and non-employment will soon follow. Our post-war years and those of every country involved, proved with their bread-lines and dole-dispensations, that prices inflated by a crisis cannot be maintained. Those who have money will simply sit on it and wait for labor to come to terms. With general prosperity now in force it is quite probable that the new schedule will finally prevail.

Most professional men will sympathize with the Saturday feature, for many of them take the day off themselves. A great many architects' offices close on Saturdays in summer and we know of several which close the year round. More and more, business executives pull down the old roll-top at 5 o'clock on Friday and call it a week. It is not surprising, therefore, to find labor following the example of its employers.

GREATEST AMERICAN ARCHITECTURE

AN interesting index of American taste in art is given by the summary of all nominations made to date to the Palos Verdes Art Jury in its nation-wide Art Appreciation Inquiry preparatory to the selection of the ten greatest examples of each of the arts of architecture, landscape architecture, sculpture and painting in America.

There are undoubtedly many important American examples of each of the four major arts that have not been called to the jury's attention. In some states not a single nomination was suggested.

The inquiry closed on December 15th, and the Jury and its National Advisory Committee will shortly report what in their judgment are today the ten most notable examples of each of these arts in America, and also of the world.

The composite list which follows mentions one each of the great examples of architecture and landscape architecture, although the same subjects were in some cases suggested by many different people. The Jury has reserved the right to make nominations on its own account of any subjects worthy of mention, that have been overlooked.

The following have been nominated for Greatest American Architecture:

Alabama, Arizona and Arkansas: no nominations. California: Greek Theater, Berkeley; Public Library and City Hall, Los Angeles; Crocker House, Pebble Beach; University Buildings and Memorial Chapel, Stanford; Public Library and Colorado Street Bridge, Pasadena; Water Temple, Sunol; Biltmore Hotel, Santa Barbara; Huntington Library, San Marino; St. Dominic's Church and City Hall, San Francisco; Franciscan Missions. Colorado: no nominations. Connecticut: Harkness Memorial Hall, New Haven. District of Columbia (Washington): Cathedral Mt. St. Albans, National Capitol, Library of Congress, Pan-American Building, Washington Monument, Lincoln Memorial, U. S. Chamber of Commerce, Scottish Rite Temple. Delaware, Florida, Georgia, Idaho: no nominations. Illinois: Wrigley Building, Tribune Building, Harper Memorial Library, Fine Arts Building of 1893, Chicago. Indi-

ana, Iowa, Kansas, Kentucky, Louisiana, Maine, Montana: no nominations. Nebraska: State Capitol, Lincoln. Massachusetts: South Church, Museum of Fine Arts, State House (Bulfinch portion), Public Library, Trinity Church, Boston; Fogg Museum, Massachusetts Hall, Cambridge; Rogers Memorial Church, Fairhaven. Michigan: Detroit News Building, Detroit. Minnesota, Mississippi: no nominations. Missouri: Kansas City War Memorial, Kansas City; Art Museum, St. Louis. Montana: no nominations. Nevada: no nominations. New Hampshire: City Hall, Manchester. New Jersey: Municipal Auditorium, Atlantic City; Hudson Vehicular Tunnels; Princeton Dining Halls, Princeton. New Mexico: Taos Pueblo. New York: Prudential (Guaranty) Building, Buffalo; College Library, Elmira; Brooklyn Bridge; U. S. Army Supply Base, Brooklyn; St. Patrick's Cathedral, Presbyterian Hospital, Apartments at 960 Fifth Avenue, Pierpont Morgan Library, University Club, Pennsylvania Station, City Hall, Columbia University Library, Bell Telephone Building, Trinity Church, Cathedral of St. John, St. Thomas Church, American Telephone Building, Woolworth Building, Riverside Church, Public Library Fifth Avenue, Guarantee Trust of New York, The Shelton Hotel, Church of the Intercession, Federal Reserve Bank, Old Treasury Building, New York City; Chapel of West Point, West Point. North Carolina: Vanderbilt Home, Biltmore, Asheville. North Dakota: no nominations. Ohio: Bell Telephone Building, Cleveland. Oklahoma, Oregon: no nominations. Pennsylvania: Soldiers' Memorial and Court House, Pittsburgh; State Capitol, Harrisburg; Independence Hall, Philadelphia. Rhode Island, South Carolina, South Dakota, Tennessee: no nominations. Texas: Mission San Jose, San Antonio. Utah, Vermont: no nominations. Virginia: Washington's Home, Mount Vernon; Memorial Amphitheater, Arlington; University of Virginia, Charlottesville. Washington: Thomas Stimson Residence, Seattle. West Virginia: no nominations. Wisconsin: State Capitol, Madison. Wyoming, Alaska, Philippine Islands, Porto Rico, Virgin Islands: no nominations.

Nominated for Greatest American Landscape Architect: (partial list)

Alabama, Arizona, Arkansas: no nominations. California: Busch's Sunken Gardens, Pasadena; General layout plan, Palos Verdes Estates; University grounds, Stanford; Japanese Gardens (Huntington Estate), San Marino; Balboa Park, San Diego; Golden Gate Park and St. Francis Wood, San Francisco; University of California campus, Berkeley. Colorado: no nominations. Connecticut: Elizabeth Gardens, Hartford. Delaware: no nominations. District of Columbia: Washington Plan, Arlington Cemetery. The Mall, McLean Estate, Pan American Gardens, Rock Creek Park, Capitol Grounds, Potomac Park, Washington. Florida: Coral Gables plan; Rollins College; H. H. Rogers Estate. Georgia and Idaho: no nominations. Illinois: World's Fair, plan of 1893, Graceland Cemetery, The Chicago City Plan, Jackson Park and city parkway system, Michigan Avenue, Lincoln Park, "Walden" (McCormick), Chicago; Frank O. Lowden Estate, Oregon. Indiana, Iowa, Kansas, Kentucky: no nominations. Maryland: Roland Park District, Baltimore. Massachusetts: Public Gardens, Charles River parkways, Outer Park System, Back Bay Fens, Franklin Park, Boston; Faulkner Farm, Holm Lea (Sargent Estate), Garden of Weld, Brookline; Arboretum, Cambridge; Nichols Garden, Salem. Michigan.

WARNER BROS. THEATER

[Concluded from Page 66]

the dome consist of 498 100-watt units, each with porcelain enameled steel reflector and natural colored curved glass diffusing lense. The illumination from these lighting units extends approximately one-sixth of the way across the dome. The remainder of the dome is illuminated by 500-watt floodlights, 108 in number, each equipped with the colored glass diffusing lenses previously mentioned. Even distribution of illumination in the dome is obtained from the floodlights because the light rays extend about three-fourths of the way across the dome. Thus the overlapping light rays from all directions assure even intensity of illumination.

An enclosed walk or passageway completely encircles the dome. This walk is four and one-half feet wide and eight feet high and is securely fastened to the framework of the building. The floor is composed of a checkered steel plate, and the walls and ceiling are of furred plaster construction. Thus at any time, even during a performance, the electrician is enabled to replace burned out lamps without the discomforts usually encountered when only a plank walk is installed, with a series of small handholes in the ceiling for replacement of lamps.

Large theater projects of this nature are only made possible by a commercial adjunct, and this commercial adjunct in itself is originally laid out. Not only are there commodious and handsome stores along both Hollywood boulevard and Wilcox street, but the entire second floor of the building is used for specialty shops, each of which has its own show window in the entrance lobby on the main floor. The rest of the building is given over to offices, except for one large space on the top floor to be used as the new broadcasting room of Warner Bros., Inc.

WITH *the* ARCHITECTS

SLEEPY HOLLOW PROJECT

Plans are maturing for a group of buildings at eepy Hollow, near Fairfax, Marin County, to be ected by a corporation financed by the Western Man- ement and Finance Company, San Francisco. The tire project involves a probable expenditure of more an $5,000,000, the buildings alone, designed by H. Baumann, San Francisco architect, to cost $2,000,- 0. Besides the hotel there will be a two hundred r garage, country club house, cottages, etc. Construc- n will probably be handled by Thebo, Starr & An- rton, a San Francisco and Oakland construction m.

BUILDING MATERIAL EXHIBIT

The Building Material Exhibit, Inc., one of the oneer institutions in this line in San Francisco, is anning to move from 77 O'Farrell street to newly ised quarters at 557 Market street, San Francisco, rly the coming year. With abundant capital, the anagement expects to give the Bay region one of the ost attractive Building Material Exhibits on the cific Coast. The entire four floors will be occupied, ving approximately 42,000 square feet of floor space. ading California and Eastern concerns have signed p for exhibit space.

W. H. WEEKS' OFFICES BUSY

New work in the offices of W. H. Weeks and Asso- ates, San Francisco, Oakland and San Jose, includes group of elementary school buildings at Hollister, sting $150,000; additional units to the Mount iablo High School, $350,000; additional units to the edmont School, $200,000; Class C reinforced con- ete lodge building for the Odd Fellows at Turlock. onstruction has just been started from plans by the me architect for a new hotel at Santa Cruz and a arket building in San Jose.

SAN RAFAEL HOTEL

S. Heiman, San Francisco architect, has been com- ssioned to prepare plans for a four-story Class B tel to replace the Hotel Rafael, recently destroyed fire in Marin County. A group of San Francisco pitalists has purchased the property from W. C. argens of Oakland, and it is planned to spend $350,- 00 in constructing a 125-room fireproof hotel.

INTERNATIONAL FAME

Pictures of recent work by San Francisco and Los Angeles architects have lately appeared in three foreign publications (all reproduced from THE ARCHITECT AND ENGINEER), thereby contributing to an international reputation for these men. One magazine published in Sydney, Australia, showed work of Edwin Snyder of Berkeley, W. H. Toepke of San Francisco and Riginald Johnson of Los Angeles. Another magazine, published in China, showed a house by Edwin Snyder.

PITTSBURG HOTEL

Plans have been prepared by Coffman-Stahlberg and Stafford, Plaza building, Sacramento, for a six-story, steel frame, store and hotel to be built at Pittsburg, Contra Costa County, California, for S. Caruso. There will be 110 rooms. The hotel has already been leased to Dan A. Schafer, formerly of the St. James Hotel, San Jose. The building and equipment will cost $150,000.

WAREHOUSE AND SHOP

Frederick H. Meyer, architect of San Francisco, completed plans for a Class C warehouse and shop for Walter H. Sullivan, to be built at Harrison and Chesley streets, San Francisco. Mr. Meyer is also completing drawings for a new building to replace the old Exposition building adjoining the De Young Museum, Golden Gate Park, San Francisco.

MUNICIPAL AUDITORIUM

A two-story Class A municipal auditorium is being designed by J. Harold MacDowell and W. Horace Austin, associated, both of Long Beach, for the City of Long Beach. Preliminary plans calling for a $1,400,000 structure have been approved by the Citizens' Advisory Committee.

HEIGHT LIMIT BUILDING

A thirteen-story Class A office building is to be erected on the northwest corner of Eighth and Bixel streets, Los Angeles, for W. W. Bearman, from plans being prepared by S. Charles Lee, Petroleum Securities building, Los Angeles. The investment will amount to $500,000.

SIXTY ARCHITECTS KEPT BUSY

Scarcity of small and cheap homes for the poorer classes has become one of Munich's most difficult problems. Plans for methodical building on a broad scale were decided upon in March, and the report by Town Councilor and Referee K. S. Preis was accepted as a basis.

The work has now been started, and in less than three years, Munich, it is expected, will possess 12,000 new homes for the working classes. Four thousand dwellings will be ready by the end of 1928, a further 5000 are to be constructed in 1929, and the remaining 3000 will be finished in 1930.

Sixty architects have been intrusted with supervising the work of construction, among them a lady architect whose competitive design has been chosen. It is for the first time in Munich's history that a woman participates in a task of this kind. The enterprise is financed by the state and town communities, by syndicates and private companies, and is warranted by mortgages.

BERKELEY RESIDENCE

Plans have been completed by W. H. Ratcliff, Jr., of Berkeley, for a Spanish type residence to be built on La Loma avenue, Berkeley, for J. M. D. Olmsted at an approximate cost of $12,000.

Mr. Ratcliff has also completed drawings for a two-story addition to the Francis Willard School, Berkeley, at an estimated cost of $80,000.

CONCRETE WAREHOUSE

The Bekin Van and Storage Company will build an eight-story reinforced concrete warehouse adjoining its Geary street building, San Francisco, at an approximate cost of $100,000. The plans were prepared by F. Eugene Barton, architect, and T. Ronneberg, structural engineer, San Francisco.

MORE SEACLIFF DWELLINGS

Plans are being prepared by George E. McCrea, Hearst building, San Francisco, for three Spanish type stucco dwellings to be built at Seacliff for Allen & Company, 168 Sutter street, San Francisco, to cost $30,000 each.

NAPA HOSPITAL

Plans have been prepared by N. W. Sexton, de Young building, San Francisco, for a $50,000 two-story, thirty-bed hospital at Napa for the Victory Hospital Association.

OAKLAND GARAGE

Plans have been prepared by John J. Donovan, architect in the Tapscott building, Oakland, for a new home for the Pacific Nash Motor Company, to occupy the present location, 28th street and Broadway, Oakland. The building will cover an area of 200x200 feet and will represent an investment of more than $100,000.

ADDITION TO FACTORY

Plans have been prepared by C. W. Zollner, 785 Market street, San Francisco, for a two-story Class B addition to the factory of the Miller Lithograph Company on Brannan street, between Second and Third, San Francisco. Joseph Pasqualetti is the owner of the property.

EIGHT-STORY APARTMENTS

Plans have been completed for an eight-story apartment building at 636 South Manhattan Place, Los Angeles, for the Merchants' Bond and Mortgage Company. R. Hollingsworth, 1311 Financial Center building, Los Angeles, is the architect.

LOS ANGELES CHURCH

Allison and Allison, Hibernian building, have been commissioned to prepare plans for a Class A church at Sunset boulevard and Detroit street, Los Angeles, for the Hollywood Congregational Society. The cost is estimated at $175,000.

$150,000 PASADENA RESIDENCE

Lewis C. Hobart, architect of San Francisco, is preparing plans for a large residence to be built in Pasadena for a client for whom he designed a house at Pebble Beach, Monterey County, several years ago. The house will be Normandy type and will cost $200,000.

BERKELEY RESIDENCES

Plans have been completed by Edwin L. Snyder of Berkeley for two Spanish residences, one to be built on Chabot road and the other on San Luis road, for C. M. Hayes and G. N. Nash, Jr., respectively.

REINFORCED CONCRETE HOTEL

The Broadway Land Company is planning to build a five-story concrete hotel at Long Beach from plans by Messrs. Schilling and Schilling, Farmers and Merchants Bank building, Long Beach.

LOS ANGELES FAVORS SKYSCRAPERS

Los Angeles wishes to change the present 150-foot ght limit building ordinance to one that will permit construction of buildings 30 or more stories in ght, but limiting the area in such high buildings. ie proposal has the unofficial endorsement of mem- s of the Los Angeles Chapter of the American In- ute of Architects.

The practical application of the plan would be to nstruct the first two stories of a building to cover entire lot, setting back the next few floors, with litional set backs at frequent intervals until the floor a of a 12-story building the size of the same lot uld be reached.

Opinion on the whole seems in favor of the plan, se opposing it referring to the earthquake hazard, l the belief that the higher cost of construction, re- ting in higher rents, would not be economically prac- al in view of the already high rents demanded in metropolitan area. It is pointed out, however, that earthquake hazard is no greater than it is in San ancisco, where 30-story buildings are already built, d that corporations and individuals would construct higher buildings, in spite of the added cost, because the great advertising advantages that would result m such ownership.

The 150-foot height limit in Los Angeles has been d aside but once, and that in the erection of the 28- ry city hall.

WHAT'S WRONG WITH THIS?

Here is a carefully thought analysis of the amount time spent at work in the year, taken from the Bul- in of the Illinois Society of Architects, whose editor ay be attempting to ease a guilty conscience:

There are days in the year		365
You sleep 8 hours a day		122
		243
You rest 8 hours a day		122
		121
There are Sundays in a year		52
		69
Half-day on Saturday all year		26
		43
Legal Holidays in the year		12
		31
One Hour a day for lunch		16
		15
Two weeks' vacation		14
Leaves		1

PERSONAL

HUNTER D. SCOTT, architect, announces the opening of offices for the practice of architecture in the French Building, Albuquerque, New Mexico. Manufacturers' samples and trade literature are requested.

W. L. RISLEY, architect, has moved his office from 2512 W. Seventh street to 314 S. Westmoreland avenue, Los Angeles.

KENNETH M. SAUNDERS, architect of Los Angeles, recently left for Rome, Italy, where he will enter the American Academy of Design for the purpose of taking a sketching course. Mr. Saunders motored to New York, from whence he expects to sail in January.

HENRY H. GUTTERSON, San Francisco architect, addressed the Rotary Club at a luncheon meeting in Stockton, November 14. His topic was "Architects and Architecture." Jos. Losekann officiated as host.

CLARENCE TANTAU, architect of San Francisco, is home again, after several months' travel abroad.

HARRY T. MILLER of Farrell & Miller, 700 Western Mutual Life building, Los Angeles, announces the removal of his office to 5300 Wilshire Boulevard.

ROBERT S. HUTCHINS, graduate with the class of '28 at the University of California, has been awarded a $1000 fellowship in architecture offered by the University of Pennsylvania.

J. DE F. GRIFFIN, architect of Chehalis, Washington, has temporarily moved to Hollywood, where he is preparing plans for a new home for Bebe Daniels, the film star.

POSITIONS WANTED

"EXPERIENCED licensed architect wishes to join or associate with architectural firm with growing practice. Long training and wide experience in industrial plants, structural engineer and specification writing. Graduate engineer. References furnished on request." Box C, THE ARCHITECT AND ENGINEER.

ARCHITECT—With 22 years' experience in all classes of construction work, open for connection with large construction company; can do anything from drafting room to superintendent of construction. Will go anywhere. State salary and location of job in first letter.—1662 Russ Building, San Francisco.

POSITION WANTED in San Francisco or Oakland architect's office, by experienced Southern California architect who has maintained an office for the past twenty-two years; six years in California. Is open to position with architectural firm or construction company as draftsman or superintendent. Would like to accept a proposition where there is possibility of advancement. First-class references. Box X, care of THE ARCHITECT AND ENGINEER.

SOCIETY and CLUB MEETINGS

NORTHERN CALIFORNIA CHAPTER

The regular meeting of the Northern California Chapter, A. I. A., was held at the Mark Hopkins Hotel, November 27th, at 6:30 p. m. The meeting was called to order by President Allen.

The minutes of the previous meeting were approved as published.

Announcement was made to the Chapter of the following election of members to the Institute with assignment to this Chapter: Messrs. Wm. Wilson Wurster and Will M. Bliss; of Associateship, Harry M. Michelson; of transfer, Harold Hopkins to the Southern California Chapter.

Mr. Bakewell called attention to the fact that most public buildings are now designed by state or municipal bureaus, and stressed the advantage of having a certain number of these opened to competition. His motion, seconded by Mr. Meyer, that a special committee be appointed to study the situation and report back to the Chapter upon the advisability of promoting a general interest to secure more open competitions, was carried.

Mr. Coxhead, chairman of the committee to investigate the proposed erection of a monument on the top of Twin Peaks, commemorative to the Dole Fliers, rendered the recommendation that the Chapter do not approve any such monument.

John Dinwiddie was the guest of the Chapter and exhibited a delightful group of sketches made in recent study and travel abroad. The Chapter unanimously expressed to him its gratification for being given the opportunity to see such an inspiring exhibit and commended the display as being of high rank of architectural rendering.

B. H. Shenberg of the A. C. Horn Co. gave a talk on "Painting With a Trowel," and demonstrated his method of interior wall treatment and decoration.

Gilbert D. Fish, Consulting Engineer of the Westinghouse Electric and Manufacturing Co., spoke on the development of electric arc welding of structural steel, illustrating his talk with an interesting series of lantern slides.

CLUB BUILDING

George Washington Smith of Santa Barbara has completed plans for a club building for the Cypress Point Golf Club, Monterey County.

SOUTHERN CHAPTER, A. I. A.

At the December meeting of Southern California Chapter, officers were elected for the ensuing year as follows: President, Pierpont Davis; vice-president, Edgar H. Cline; secretary, A. S. Nibecker, Jr.; treasurer, Ralph Flewelling; director for three years, Eugene Weston, Jr.

Delegates were elected to the National Institute convention to be held in Washington, D. C., next May.

The annual address of the president was read and reports of various other officers and committees were read and approved.

WASHINGTON STATE CHAPTER

The November meeting of the Washington State Chapter was held at the College Club, Seattle, November first. There was some discussion regarding improvements of the Architects' License Law in the State of Washington, and it was decided to instruct the Legislative Committee to correspond with the National Council of Architectural Registration Board to ascertain the scope of the law in other states, and the attitude of the National Council in the matter.

Mr. Albertson, Regional Director, presented a number of suggestions on publicity matters and advertising.

* * *

At the October meeting Mr. Gould made a brief report for the Institute Affairs Committee.

Mr. Thomas reported briefly for the City Planning Committee, and Mr. Holmes reported for the Committee on Medals for Collegiate Awards.

Vice-President Naramore spoke of the coming departure of President Ford on a trip to the East, which was to mark the termination of his solitary domestic existence.

Mr. Gove gave an interesting account of his recent trip abroad and illustrated his talk with lantern slides.

Three new members were admitted—Messrs. Lockman, Skoog and Stoddard.

* * *

The recent Golf Tournament was decided in favor of J. Lister Holmes, who thereby becomes the Chapter's champion golfer, James H. Schack being the runner-up.

L. A. ARCHITECTURAL CLUB

The regular monthly meeting of the Los Angeles Architectural Club was held November 20th, at the California Art Club rooms, Olive Hill. Arthur M. Loomis, C. P. A., spoke on the subject of "Business Mortality."

After stating that 80 per cent of the businesses each year are failures, Mr. Loomis attempted to explain the causes for this startlingly high average. The first reason he considered to be the failure to give proper study to active competition. The present trend is toward centralization of effort in order that duplication may be eliminated and one governing body may reduce costs to a minimum. Lack of standardization was the speaker's second reason for such a high rate of business mortality. Men entering business fail to take sufficient notice of the enormous losses entailed unless standards are restricted to the smallest amount. Multiplicity of designs and materials are danger signals to observe cautiously. Under capitalization was the third caution which Mr. Loomis mentioned. The fact was stressed that banks should not be expected to provide permanent capital to unhealthy business enterprises.

The Atelier-Los Angeles exhibited the Paris prize drawings in the Architects' building from Dec. 10 to 12. These were correctly conceded to be the finest examples of architectural design of the current period. The winning of the Paris prize is the highest honor that can be awarded to any American draftsman. The subject for the competition was the design of a "Supreme Court Building" facing a large plaza, and "Memorial Bridge." An ideal setting of the structure and the surrounding landscape made this conception one of unusual interest. Atelier-Los Angeles also exhibited some of their own Beaux Arts work.

New members who have joined the club since the last meeting are: Charles A. Stone, 2219 Juliet street; Milton W. Nigg, 527 N. avenue 67; L. K. Stafford, 1208 W. 10th street; Joseph Nicolosi, 832 S. Westlake; Floyd T. Whitney, 7024 DeLongpre; Luis Payo, 1308 W. 7th street; Burgo Purcell, 2020 Miramar street; A. M. Roos de Viercy, 668 Burlington street; Paul Kiessig, 12719 Kling street, North Hollywood.

SOULE COMPANY MOVES

The Soule Steel Company announces that its new Southern California address is Sixty-third and Wilmington streets, Los Angeles, and its new mailing address is Box P, Huntington Park, California.

ALAMEDA SOCIETY OF ARCHITECTS

THE Society of Architects of Alameda County recently held its annual meeting, the first meeting to be held since adjournment for the summer. Reports of officers and committees were submitted and the society appears to be in a flourishing condition. A number of well-attended meetings were held during the year, at which interesting speakers were present. Similar gatherings are planned for the coming year, including a series of dinners.

The following officers were elected: President, Wm. G. Corlett; Vice-President, E. J. Bangs; Secretary and Treasurer, Frederick H. Reimers; Directors, M. A. Williams, Edward T. Foulkes and David Olson.

PASADENA ARCHITECTURAL CLUB

The Pasadena A. C. is furnishing its new quarters. The members have just had the walls painted, have hung some pictures and have acquired a number of pieces of furniture. The new home promises to be very attractive. The club is now holding two life classes and one engineering class and expects soon to establish an Atelier.

On Friday evening, November 23rd, the members were treated to a "Spaghetti Struggle," which was in charge of A. Manuelli. A christmas card contest is bringing out an attractive number of designs. This closes December 18th. The sketch contest, which recently closed, brought out about twenty competitors, prizes being awarded as follows: Black and white, first, Roy Parkes; second O. F. Stone; mention, M. Elsworth. Water color, first, Cliff Hoskins; second, O. F. Stone; mention, O. F. Stone. The judges were Alson Clark, Garrett Van Pelt, Jr., and J. Kucera.

The Pasadena Club is also co-operating with the Los Angeles Architectural Club, the A. I. A. Southern California Chapter and the Architects' League of Hollywood, in the exhibition of architects' work now being held in Los Angeles. W. J. S.

WASHINGTON STATE SOCIETY

The annual meeting of the Washington State Society of Architects was held at Seattle, December 6th. Dinner was enjoyed at the Gowman Hotel. Following the election of officers, plans were discussed for constructive work during the coming year.

At the November meeting of the Society, Paul Barnes gave an interesting talk on "Vitaglass, Vitrolight and Artglass."

S. F. ARCHITECTURAL CLUB

PRESIDENT LAWRENCE KEYSTER presided at the monthly meeting held Wednesday evening, November 7th. The secretary's report showed 12 new members during the last month. Communications showed that the eastern states are well aware of the good work being done in the club and are interested in the educational, social and administrative programs in effect.

It was with regret that Mr. McKenzie's application for resignation, due to ill health of his family, was accepted.

It was also an unexpected joy when Harry Langley applied for a cancellation of his leave of absence. It seems Harry returned from the land of the Mormons sooner than expected.

The treasurer's report showed a healthy condition of the club's finances.

The educational report showed a membership of 20 paid up members in the Principles of Full Size Detail Class. This class, which was begun as an experiment last year with an enrollment of five members, has grown to be the largest of the classes in point of membership. Mr. Williams has shown himself to be the correct man for instructor.

The Engineering for Architects Class, under the able direction of C. J. Sly, has always been popular and efficient from the beginning. I sometimes think it gives the boys something which they cannot get even in universities, namely the practical side of engineering, together with the same theoretical training that the university imparts. The results of last year's class were shown when a number of Mr. Sly's students passed the State Board examination with high grades.

The next class to appear on the schedule will be the History of Architecture. Since the State Board lays more stress on architectural subjects, this class is necessary now.

An exhibit of the club's work was on the walls of the dining room of the Mark Hopkins Hotel at the invitation of the American Institute of Architects at their annual dinner. I am sure the architects realize what the club is doing towards reducing the cost of maintaining junior members in their offices.

Mr. Cole of Gladding McBean Company was presented with an illuminated vote of thanks for the trip given by the company to its plant at Lincoln.

The most important announcement of the evening was that a Christmas party for members only would be held this year in the club rooms on December 19th. Everyone is expected to be there. No excuses will be accepted. Those not there will be fined and the assessment placed in the scholarship fund. Presents of all descriptions will be given to the members.

Ed. DeMartini overdid himself with hot tamales and potato salad, etc., at the end of the meeting. Ed. is getting to be quite a chef. A. N. Jr.

CONSTRUCTION SLOWS DOWN

A continuation of the downward trend of building activities throughout the country is indicated in the reports made to S. W. Straus & Co. of building permits issued and plans filed in 533 leading cities and towns for the month of September. The total reached $267,261,008, compared with $296,607,719 in September of the preceding year and with $311,936,476 in August, 1928. The loss from last September was 10 per cent and from August, 14 per cent.

The firm condition of the building materials market which has existed for several months continued through September and price changes were not sufficient materially to affect the cost index. Local declines in some materials were offset by increases in other localities. Portland cement and common brick remained unchanged. Curtailment in pine and fir production prevented a slump in price, although there was some weakness as compared with the preceding month. The structural steel shapes market, on the other hand, was rather active, and the third quarter closed strong with good prospects for the final quarter.

TWELVE LEADING STATES

	States	*No. of Places*	*Volume of Permits*
1.	New York	42	$72,441,058
2.	Illinois	48	28,863,022
3.	California	59	23,066,237
4.	Michigan	19	16,144,095
5.	Ohio	26	14,032,277
6.	Pennsylvania	28	13,959,532
7.	New Jersey	35	10,601,081
8.	Massachusetts	25	9,317,537
9.	Wisconsin	18	6,955,813
10.	Texas	19	6,830,051
11.	Maryland	5	6,796,364
12.	Indiana	21	6,701,500

SUNNYVALE CITY HALL

A. A. Cantin, Flatiron building, San Francisco, has prepared plans for a one-story reinforced concrete city hall for the town of Sunnyvale.

OBITUARY

Fred Hauser

The California friends of Fred Hauser, inventor nd owner of the Hauser reversible window, were rieved to learn of his death at Rheydt, Germany, No- ember 14th. Mr. Hauser and Mrs. Hauser were pre- aring to return home after a pleasant vacation with mily relatives in Germany, when he was stricken. lthough 70 years of age, Mr. Hauser took an active art in the business of the Hauser Window Company f San Francisco, of which he was sole owner. He atented the Hauser reversible window and was an ctive member of the San Francisco Builders' Ex- hange.

The affairs of the company will probably go on nder the management of Mrs. Hauser, who was al- ways more or less active in the business, and a nephew, ho ably looked after the business during the six onths absence of Mr. and Mrs. Hauser.

R. H. Hubbell

R. H. Hubbell, president of the Hill-Hubbell Com- any, pioneer paint manufacturers of San Francisco, as found dead in his suite at the Biltmore Hotel in New York City, Nov. 4. Mr. Hubbell was regarded s one of the leading authorities on paint in the United tates. He was 49 years of age, and had a great many riends up and down the Coast.

Almeric Coxhead

The death of Almeric Coxhead, formerly of Coxhead nd Coxhead, architects with offices in the Hearst uilding, San Francisco, occurred November 30, after lingering illness. Mr. Coxhead had not practiced is profession for several years owing to failing health. Ernest Coxhead of San Francisco and Berkeley was n England at the time of his brother's death. Almeric Coxhead willed his nurse, Miss Florence A. Marsh, $5000 as a reward for her faithful services during his llness.

PRIX DE ROME COMPETITIONS

The American Academy in Rome has announced its nnual competitions for Fellowship in Architecture, Landscape Architecture, Painting and Sculpture. En- ries will be received until March first, 1929. Circu- ars of information and application blanks may be ecured by addressing Roscoe Guernsey, Executive Sec- retary, American Academy in Rome, 101 Park avenue, New York City.

BOOK REVIEWS

By Edgar M Kierulff

FORTY YEARS OF LANDSCAPE ARCHITECTURE, being the Professional Papers of Frederick Law Olmsted, Senior. Central Park as a Work of Art and as a Great Municipal Enterprise, 1853-1895. Edited by Frederick Law Olmsted, Jr., and Theodora Kimball. Illustrated ix; 575 p., 8 vo. Price $7.50. G. P. Putnam's Sons, New York and London, The Knickerbocker Press.

This remarkable book, discussed more fully in an article on Landscape Architecture, which the writer has prepared for a later issue of this magazine, is actually Vol. II, in a series of books by the same collaborators. Vol. I of the series entitled "Early Years and Experiences," outlines the Elder Olmsted's ancestral background, youthful training, studies, reading, adventures in farming, studies in Europe and so on.

In the Vol. II, now just published, is set forth in a most interesting manner, Mr. Olmsted's work as the designer of Central Park, New York; how the execution of the design was delayed by the Civil War, was seriously handicapped by the Tweed Ring, was renewed and restored later—all this is accompanied by copious notes and quotations from reports. Among the many interesting features is a chapter by the younger Olmsted on "The Park in Relation to the City Plan."

Students of the subject will forever owe a debt of gratitude to those who have collaborated so successfully in the preparation of this book.

Vol. III, the last of the series, now in preparation, is to contain, besides details of Mr. Olmsted's other great works of landscape design, *a full subject index,* to all the material in the whole series of volumes, thus opening for ready reference a mine of information on hundreds of topics in the field of landscape architecture and administration of public works.

The entire series cannot fail to be of value to several groups; to students of the subject of course, for nowhere else can they find so much helpful and important material; to park commissioners, for in the story of Central Park, as here set forth, such gentlemen should learn much about what to do and very particularly what not to do, in regard to political participation to park design, construction and maintenance; to park superintendents and other officials, for here is clearly set forth much that should help them in their work; to professional city planners and to city planning commissioners, for all through the book, and particularly in Chapter XIII of Part I (by the younger Olmsted), city planning as it is affected by parks, is

presented in a new light; to the thoughtful general public for such as these are herein given information that will help them support park movements in their own communities, and enable them to stand behind the conscientious members of their park commissions. Copies of all three of these volumes should be in every college, public and school library in the land.—

—Stephen Child.

DRAWING WITH PEN AND INK. By Arthur L. Guptill. With an introduction by Franklin Booth. 444 pages, 9 x 12. Over 800 illustrations. Bound in silk pattern cloth. Price $8.50. The Pencil Points Press, Inc., 419 Fourth Ave., New York City.

Like its companion book, "Sketching and Rendering in Pencil," this book is based partly on lectures and instruction given by the author in his classes at Pratt Institute, Brooklyn, N. Y., and partly on his experience as a professional illustrator and as an architectural renderer.

The volume offers much of value to everyone, whether novice or adept, who is interested in the art of drawing with pen and ink. The chapters follow the work of the student from the beginning, with instructions and suggestions about pens, ink, drawing paper, rulers, erasers, etc., up to the final chapters treating of special matters. An attempt has been made to preserve the unity of each chapter so if read by itself it will have a complete meaning, making the book valuable as a reference.

The illustrations show many kinds of subjects handled in a wide variety of ways. The elementary illustrations are reproduced at the exact or approximate size of the original drawings, so each individual pen stroke appears much as it was drawn, both in size and in character. The illustrations by the author have been drawn, not so much to beautify the whole, but to meet the necessity of simplifying and clarifying the points brought out by the text. The supplementary illustrations have been selected and arranged so that every drawing, aside from being an excellent example of pen work done by an expert, fills some particular requirement. The marginal sketches serve as useful illustrations to the text, and also act as a sort of pictorial index.

The book offers practical instruction in the art of pen drawing, rather than a statement of facts concerning its history or a discussion of the relative merits of the works of its followers. The student and draftsman will find it to be a sound and complete guide for the study of pen and ink and its various techniques, even through the use of colored inks.

A splendid volume for designers as well as architects and specification writers, containing information on design and cost data for the building code, under which may be found bending and direct compression, rectangular sections, formulas for design values of p and k design, coefficients for flat slab floors and other useful information presented in a plain and practical manner.

HOME FLOWER GROWING, By Emil C. Volz. The MacMillan Company, New York, publishers. Price $3.50.

A book for flower lovers and all those who take pleasure in gardens and raising their own decorative flowers. Comprises chapters on planning, annuals, garden flowers for special purposes, indoor flower growing and several other interesting chapters. Illustrations include a large number of excellently placed and chosen photographs.

THE CARE OF ORNAMENTAL TREES, By C. F. Greeves-Carpenter, F. R. H. S. The MacMillan Company, New York, publishers. Price $1.25.

A small handbook, readily adaptable to the needs of the landscape architect, gardener and home owner; very well written, containing chapters on care, spraying, fertilization and pruning, as well as others on cavities and their treatment and diseases of ornamental trees. An excellent addition to any working library on horticulture and exterior ornamentation.

GARDEN CINDERELLAS (How to grow lilies in the garden), By Helen Morgenthau Fox; foreword by Ernest Henry Wilson. The MacMillan Company, New Rork, publishers.

A charming book on lilies and their growth, care, diseases and pests attacking them, giving a history and a chapter on American lilies with photographs and color plates. A scholarly book on a fascinating subject, prepared for the amateur gardener and the layman.

PRACTICAL COLOR SIMPLIFIED, By William J. Miskella, M. E., Finishing Research Laboratories, Chicago, Ill., publishers.

An excellent handbook on color for designers, artists, painters, photographers, schools and universities, written in a clear and comprehensive manner and containing some well chosen plates and diagrams in color.

A HANDBOOK OF REINFORCED CONCRETE BUILDING DESIGN, in accordance with 1928 joint standard building code, By Arthur R. Ford, B. S., M. S., C. E.; Authorized reprint from American Concrete Institute. Price $1.00.

HOUSE BEAUTIFUL COMPETITION

Los Angeles architects were much in evidence in the House Beautiful Competition just concluded. First prize for the best house of five to seven rooms was awarded to H. Roy Kelly of Los Angeles for the resi- *House Beautiful* Competition just concluded. First prize for the best house of eight to twelve rooms was awarded to Gordon Kaufmann of Los Angeles for the residence of Martin F. Mitau at Atherton, near Palo Alto.

Those winning honorable mention were: Albert J. Schroeder, Pasadena; Roger D. MacPherson and William McL. Dunbar, Rochester; A. L. Murphy Vhay, Santa Barbara; Alfred Easton Poor, New York; Donald D. McMurray, Pasadena; David J. Witmer and Loyall F. Watson, Los Angeles; R. H. Scannell, Bronxville, N. Y., and Marjoria A. Potwin, Spartanburg, S. C.

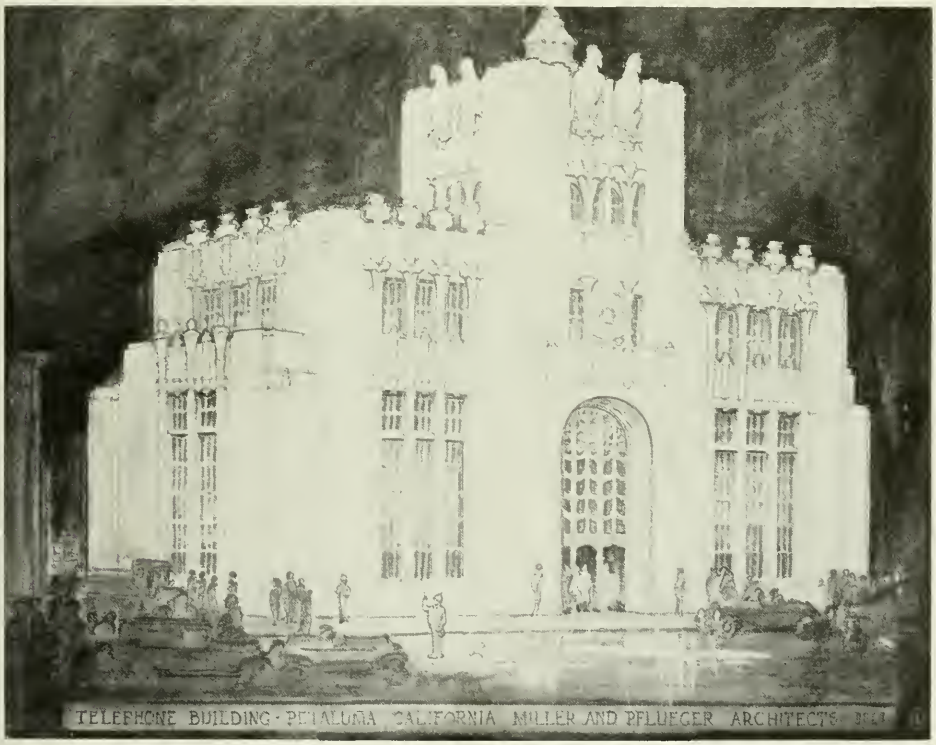
The highly commended were: A. C. Zimmerman, Los Angeles; Nelson Wellhorn, New Orleans; William Wilson Wurster, San Francisco, and Bruce Elwell, Boston.

MORE ARCHITECTURAL MASTERPIECES

Another picture is shown this month from the "Architectural Masterpieces," which were displayed at the recent State Convention of the California Association of Architects, in San Francisco. The drawing was made by J. K. Ballantine in Henry H. Gutterson's office and shows a telephone building for the city of Petaluma, with motifs taken from the San Francisco Telephone Building, designed by Messrs. Miller and Pflueger. Note the poultry motif in the cresting.

NEW FIRM NAME

Claude Fisher, C. R. Ross and Macdonald & Kahn, bidding jointly, have been awarded a contract by the county supervisors of Los Angeles to construct the San Gabriel flood control dam at the forks in San Gabriel Canyon. The contract price is $11,250,040, the contractors to furnish all concrete aggregates.



SUGGESTED PHONE BUILDING FOR PETALUMA
Rendering by J. K. Ballantine

In the new Pasadena City Hall

Pasadena City Hall, Pasadena, California. Bakewell & Brown, Architects

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SMALL HOUSE NUMBER

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The ARCHITECT AND ENGINEER

Since 1905

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ETCHINGS OF THE FRANCISCAN MISSIONS OF CALIFORNIA

By Henry Chapman Ford

No. 12—Mission San Antonio de Padua

This Mission is situated in the heart of the Santa Lucia Mountains, in San Luis Obispo County, and is reached by stage from King City, a distance of about twenty-five miles. The church was built in 1773 and was constructed of adobe with a tile roof, the latter developed at San Luis Obispo. The architecture of the original church was considered more beautiful than that of many of the other California Missions. Unfortunately, no attempt was ever made to keep the building in repair, and today the edifice is almost a total ruin.

Like San Luis Obispo, the original church was preceded by a vaulted narthex, twelve feet wide, which, constructed of brick, formed the real fachada up to the nave. The lower story consisted of a series of circular-headed arches which served as entrance ways. Above the entrances was a unique and beautifully curved gable built in two stages, the upper pierced by a central arch and flanked by low towers. In these towers hung the bells of San Antonio, long since stilled.

MISSION SAN ANTONIO DE PADUA
FROM AN ETCHING BY HENRY CHAPMAN FORD

The
ARCHITECT
AND ENGINEER
January, 1929

The ARCHITECT AND ENGINEER

VOLUME XCVI JANUARY, 1929 NUMBER ONE

CHANGING PHASES OF SMALL HOUSE DESIGN

By Marc N. Goodnow

CHANGING phases of American life have kept the architect busy these past five years in devising ways and means of translating public demand into terms of good architectural design and construction. Frequently it has been a question of whether to lead or follow, whether to do the real right thing at the risk of offending or losing a client or of giving 'em what they want and riding in the bandwagon.

A good part of this work in California has been in offsetting where possible the inevitable fads that creep into popular movements and in stabilizing a method or a treatment that defies precedent or threatens to upend well-grounded principles. A review of the architect's work in these parts for the period would disclose a professional influence in sobering many trends that promised no great good for the small house as an institution.

Speaking only for domestic architecture, it is rather easy to see that while the picturesque is still a discernible quality, the brazen and bizarre have definitely subsided. Where formerly so-called ornamentation was a desideratum for the exterior of many houses, today there is a more introspective view of the small dwelling with a consequent enhancement of many values that make for greater beauty and livability.

If California architects have done nothing else in the past five years except to introduce the element of livability as a keynote of the American home, they have done sufficient to mark them with distinction. For that quality at least seems to have touched a responsive chord and opened to eastern visitors a new opportunity for increasing the delights of their own homes, even though of a very different architectural style.

Perhaps the thing could have been done only in California, where climate works hand in hand with the architect. At least it was no less a person than Alfred Hopkins, architect of New York City, who wrote in his book on American country houses:

"It is to the far west we shall have to go—for that progress and originality in American architecture lacking in so much of our work. When you can substitute sunshine and warm breezes for blizzards and a thermometer which is suffering from chilblains; when you can have open doors and open loggias connecting one room with another, and forget steam heat and storm windows, then the architect has nothing to hamper him but his imagination."

But the imagination of the architect has not been the only imagination at work. Various types of builders and even many owners have evinced a rather well developed flair for innovations that are as unsound and impractical as they are restless and strained. Jazz plaster has not died without a struggle and cheap imitations of genuine design and construction have continued to fight with their backs to the wall; but at least the number of good houses has grown and in them are exemplified many principles that, has become a recognizable feature of many English houses, which, in California, need just those same elements if they are to be an appropriate expression of domestic life within the state. The box-like arrangement of rooms that once characterized Colonial and other house planning in this section, has given way either to a "U" shaped plan, or one in which a wing projects from the main axis to form at least a partial shelter or a background for an outdoor terrace or an enclosure similar to the patio.

Photo by George Haight

HOUSE OF MR. AND MRS. WILFRED SIMPSON, PASADENA
Witmer and Watson, Architects

fortunately, are being emulated.

To any one who studies the progress of domestic architecture in California, there must come the quick realization that what may be called an outdoor quality has entered more vitally into recent house planning than any other element of livability. A direct outgrowth of climate, by way of the patio, this closer relation of the house with the greenery of the garden, the light and warmth of the sun and vistas of blue skies, wooded hillsides and even ocean waves, has produced charms as delightful as they are unique.

Nor does this type of planning stop with the house of Spanish precedent; in fact, it

This, at least, has been both a logical and a genuine demand on the part of the public which has sensed the indefinable charm that issues from well screened, but sunlit enclosures, or cloistered nooks with decorative tiles and comfortable furnishings just outside the threshold. It has represented a laudable desire to bring the outdoors indoors, to frame many beautiful pictures that otherwise would be lost.

Hardly less noticeable have been certain other changes and developments in interior phases of the house. Bathrooms have grown in necessity and number, what with present-day emphasis on milady's toilette. The small house with two bedrooms may now boast of

eparate baths, or a bath and a shower. The econd toilet, on the service porch, has al-eady become almost as staple as the front loorstep.

We find, too, that the twin bed has been ollowed by a growing demand for a sepa-ate sleeping room for each member of the narital partnership, or if not for individual se, then for guest purposes or for a maid. Here the automobile also is somewhat re-ponsible; ease of travel has increased social isits, possibly even irregular hours, together with the need for ready accommodation on short notice. All in the modern trend.

The worry which some architects may have experienced over the call to combine the living room and dining room, fearing that the order meant death to certain well established family standards, seems not to have been well grounded; for the fad apparently has spent its force. The number and character of inconveniences encountered in serving the meal and in setting the room to rights afterward have outweighed the advantage gained in conserving space.

The dining room remains an American institution with traditions too deep to be easily or quickly uprooted. The kitchen nook may have definitely replaced the breakfast room, but its use as a convenience does not jeopardize the older and more formal room in which to serve the one or two main meals of the day.

The garage is, of course, playing a more and more conspicuous part in the design of the small house. Not only are certain economies being effected in locating it as an integral part of the dwelling, but its importance in the daily scheme of life, coupled with the desire to give more space to the garden, is bringing it forward as a feature of the front elevation.

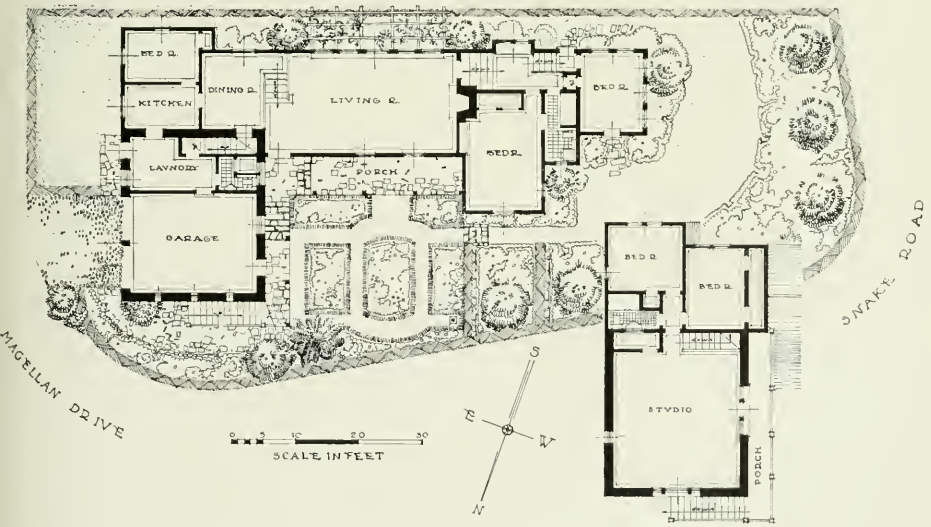
HOUSE IN SEA CLIFF, SAN FRANCISCO
Geo. E. McCrea, Architect

Much of the former prejudice against this latter treatment has subsided with the realization that the garage can be tied in architecturally with the design, and that it may also be handled in such a way as to further the need for shielding the patio or garden from the noises of the street. On the narrow city lot the garage, in skilled hands, is becoming an appropriate part of the front facade. The garage is so placed as to give greater depth to the house or to form a side wall of a front garden or screen a more private patio opening directly upon a covered porch. Elimination of the drive-

Photo by Margrethe Mather

INTERIOR DECORATION BY H. W. GRIEVE

HOUSE OF MRS. WILLA C. CARMACK, OAKLAND
James Lindsay McCreery, Architect



PLAN, HOUSE OF MRS. WILLA C. CARMACK, OAKLAND
James Lindsay McCreery, Architect

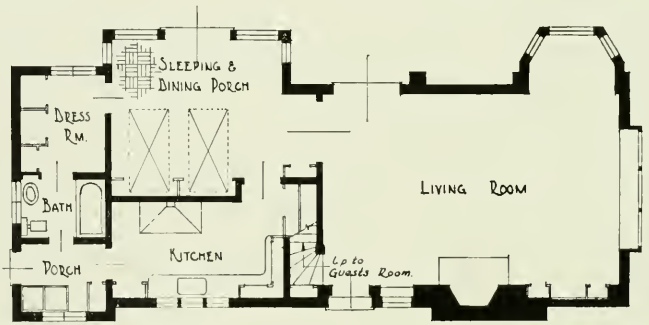
HOUSE OF MRS. WILLA C. CARMACK, OAKLAND, CALIFORNIA
James Lindsay McCreery, Architect

HOUSE OF MRS. WILLA C. CARMACK, OAKLAND, CALIFORNIA
James Lindsay McCreery, Architect

Photo by McCullagh

HOUSE OF RAYMOND T. FARMER, BERKELEY, CALIFORNIA
Henry H. Gutterson, Architect

GARDEN VIEW, HOUSE OF RAYMOND T. FARMER, BERKELEY
Henry H. Gutterson, Architect



First Floor Plan

HOUSE OF RAYMOND T. FARMER, BERKELEY
Henry H. Gutterson, Architect

Photo by McCullagh

LIVING ROOM, HOUSE OF RAYMOND T. FARMER, BERKELEY
Henry H. Gutterson, Architect

vay along the entire side of the house may nean opportunity for greater width of ooms or other features now either cramped r entirely done away with.

years, though the dimensions of the house may not have increased appreciably.

With respect to materials, one finds equally notable changes coming into the

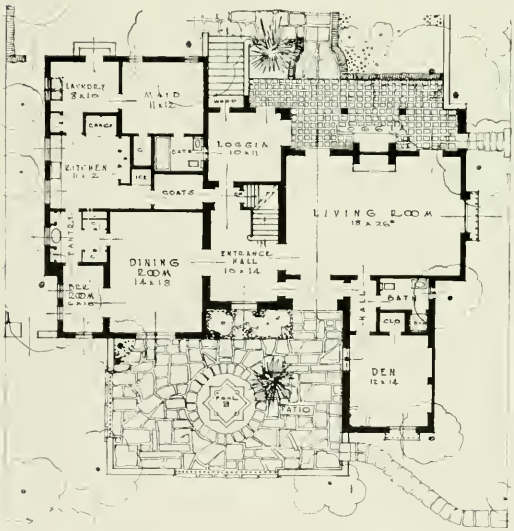
hoto by Margrethe Mather

HOME INTERIOR BY H. W. GRIEVE

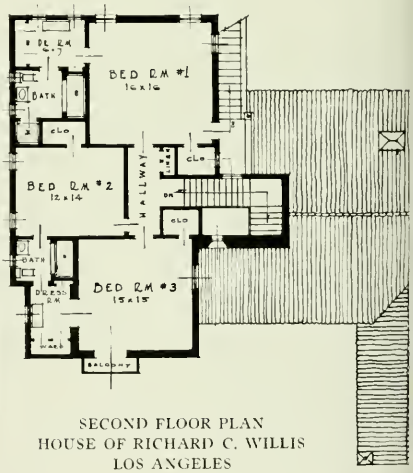
The growing need for an appreciation of privacy has even accentuated the importance of the vestibule or front entry; this feature is now much more common in architectural planning than in former small house, partly at the instance of the owner, partly on the initiative of the architect. And these, too, have required the exercise of some restraint to bring them into harmonious relation with both the purposes

Photo by Mott Studios

HOUSE OF RICHARD C. WILLIS, LOS ANGELES
Ralph C. Flewelling, Architect



PLAN, HOUSE OF RICHARD C. WILLIS, LOS ANGELES
Ralph C. Flewelling, Architect



SECOND FLOOR PLAN
HOUSE OF RICHARD C. WILLIS
LOS ANGELES

for which they are used and the effect which they create.

The use of decorative tiles, for example, has grown rapidly and widely. Floor tiles have gradually crept into living and dining rooms and even hallways of the small house. Wrought iron has caught the popular fancy,

See detail on page 85

RANCH HOUSE FOR DR. R. M. MOOSE, SAN BERNARDINO
Witmer & Watson, Architects

nd in the Spanish house certainly has be-ome a much more standard product than t any time.

In Southern California, particularly, oth brick and concrete tile have shown new legrees of adaptability to small house archi-ecture. The vogue of the textured plaster ouse gave birth to new texture treatments n masonry construction that have added no ittle charm to the scene. Both brick and oncrete houses, washed with a light coat of vhite cement, have brought a fresh and in-eresting note into the picture.

As one looks back over the past five years t is evident that small house design has be-ome more conservative and that its plan-ing has been more suitably adapted to the eeds of domestic life in California. It is ertain, also, that in the main construction as been immensely improved.

In all this the architect's house has lost one of its picturesque quality, but it has bsorbed a certain simplicity from both the naterials of which it is built and the way n which they have been handled. The etter work displays a freer use of natural lements, treated in a simple, frank and natural way. There is, as it were, more of architectural candor, and less disposition to overcoat or camouflage. The tang (or is it the taint?) of the movie set seems to have lost its savor.

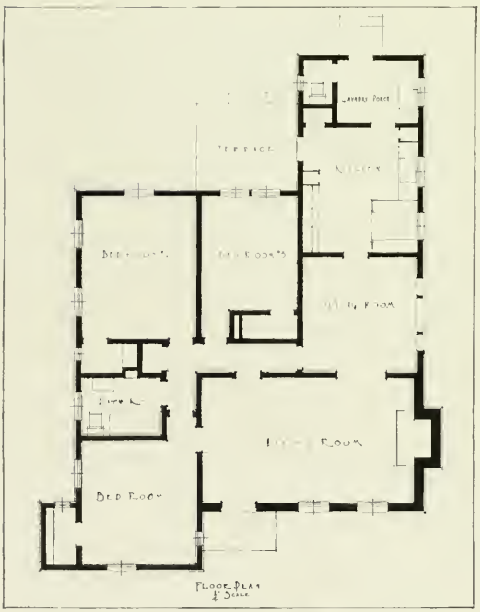
This more conservative tone may be partly ascribed to innumerable efforts in behalf of better architecture and planning, plus a growing public appreciation that gaudiness and pretense do not make for long-continued satisfaction. It is now realized that the many theatrical effects produced during the high peak of home building have not worn throughout the years; also, they have been hard to sell; whereas the house in good taste still has a market.

MODERN HOME IS OIL HEATED

By C. H. Beebe

PRACTICALLY every architect who designs residential buildings is finding on the part of many of his clients, definite interest in the use of oil heating. The facts favoring the use of dependable oil-burning equipment are obvious. Automatic control eliminates the bothersome labor to home

A SPANISH BUNGALOW IN SOUTHERN CALIFORNIA
Henry F. Withey, Architect



PLAN, A SPANISH BUNGALOW
Henry F. Withey, Architect

owners in caring for their heating plant and permits the maintenance of uniform temperature throughout the heating system.

It eliminates the waste of fuel by stopping combustion when heating is unnecessary and by starting it again as required. It eliminates the ash and dust nuisance, resulting in cleaner homes and permitting the utilization of basement space for living and recreational purposes.

Whether oil fuel is more or less expensive than other fuels, is governed by a number of factors which vary in almost every installation. There is no direct answer to the question, "Does oil cost more than coal or other fuels?" There are too many intangible values to be considered. For example: there is an important saving of labor by automatically controlled oil heating equipment. Thermostatic control means economy of fuel, for fuel is burned only when it is needed.

Other factors which must be considered are: efficiency of the heating plant, its adaptability to the fuel employed and the manner in which the oil heating equipment is installed, adjusted and operated.

HOUSE OF C. A. STRAYER, BEVERLY HILLS, CALIFORNIA
George M. Pardee, Designer

The price of coal covers delivery of bulk fuel to the coal bin. Before it becomes heated, all the familiar and objectionable intermediary steps must be gone through, while oil delivered to the storage tank remains untouched until it is transformed into clean, uniform heat.

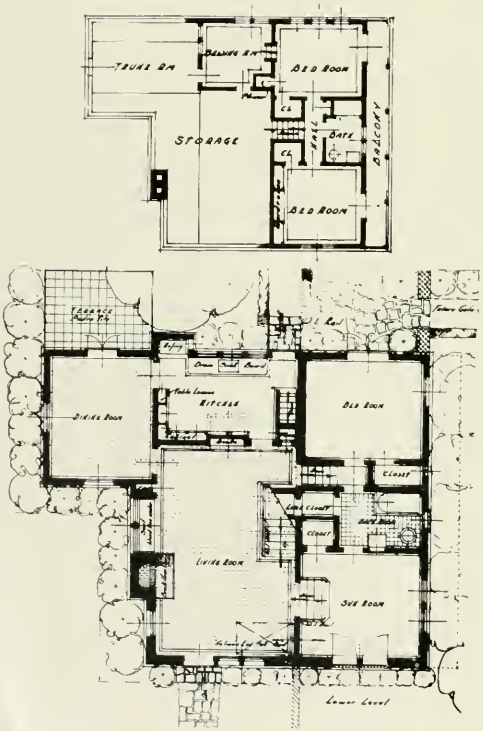
Architects specifying oil heating installation must appreciate that oil burners, as well as other familiar mechanical devices for domestic use, must be intelligently selected and the installation correct in all details. Modern oil burners are as mechanically perfect as advanced engineering and science can make them. Under proper care, they will function correctly and require little attention beyond periodical oiling and occasional cleaning.

Oil burners constitute merely one important element in a heating system. They will not overcome the troubles of a faulty boiler or an incorrectly installed radiator, except insofar as they may provide greater heat than the former fuel could supply.

Oil heating installations should be designed with all of the parts in proper balance and relationship; including the boiler,

PLAN, HOUSE OF C. A. STRAYER, LOS ANGELES
George M. Pardee, Architect

HOUSE OF T. FENTON KNIGHT, LA CANADA, CALIFORNIA
H. C. Newton and R. D. Murray, Architects



chimney or stack, the distribution system and the radiator. The installation of an oil burner in a poorly designed boiler or furnace will naturally limit the efficiency with which the heating units in oil heating are employed.

This brings us to the obvious conclusion, that the selection of the correct type of equipment by the architect and its proper installation by the dealer is of paramount importance. As much attention should be paid to this one factor as to any other, because upon it depends successful operation of the equipment.

Similarly, the subsequent service and maintenance of the equipment is a substantial part of the problem. The best results will be secured only when the architect and owner are willing to place the selection of the burner and its maintenance in the hands of oil heating engineers supplied by the sales organization for that purpose.

Realizing the paramount importance of this, the more progressive oil burner manufacturers have established an oil heating engineering service bureau to assist architects and heating engineers in the solution of their more difficult heating problems.

Photo by the Mott Studio

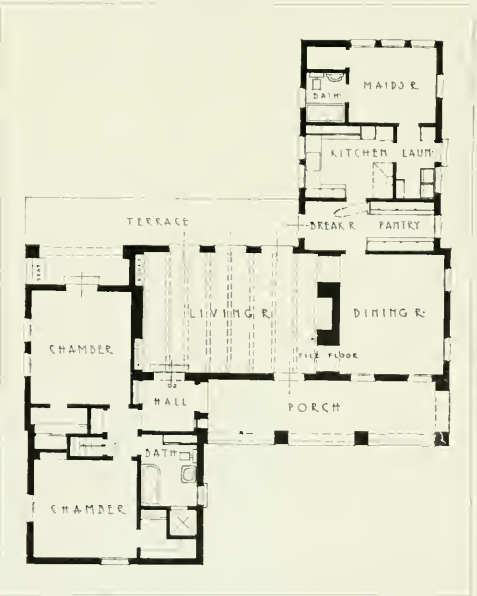
HOUSE OF THEODORE CHAPIN, PASADENA
Frederick Kennedy, Jr., Architect

Basis of Interior Decoration

GOOD interior decoration is in the main a matter of historical precedent, says a writer in *House and Garden*. The bizarre, the merely flamboyant or extreme, cannot and should not persist, for after all, the principles of good color and line effects are definitely known and were demonstrated many generations ago. Their application is found in every lasting style, and to violate them is to court failure.

Because certain historic persons in decoration were sound in these basic principles they come down to us virtually unchanged through the years. We turn to them constantly in our modern interior—in fact, few of the countless good rooms which are being done today are without their influence.

One of the period styles in which there has been a marked revival of interest is the Directoire, dating from that transition era immediately following the French Revolution. A notable absence of carving characterized the mahogany, ebony and rosewood of which Directoire furniture was usually made.



PLAN, HOUSE OF THEODORE CHAPIN, PASADENA
Frederick Kennedy, Jr., Architect

A PLEA FOR BETTER DESIGN IN SMALL HOME GARAGES

By H. A. Brossard

AMERICA is awakening to a sense of beauty. This awakening is evinced by the home owner in the design and furnishing of his home, in the design for his garage and other out-buildings and in the general appearance of his grounds. The home owner has come to appreciate the value of good architecture and carefully planned landscaping.

The amount of money invested by the average home owner in his motor car justifies storage that will satisfy four essential requirements: first, security against fire; second, protection against weather; third, reasonable convenience; fourth, attractiveness. A garage providing these features is the most economical in the long run.

In addition to the fire hazard common to all buildings, the garage has a hazard of its own. The presence of gasoline and oil makes it of vital importance that it be fire-safe. Housed in concrete, brick or tile masonry, the car has maximum protection. The fire-resistive properties of these materials are well known. Laboratory tests and actual fires have repeatedly demonstrated their ability to withstand intense heat.

In many cities building regulations require that inflammable structures be built some distance from the lot line, but allow fireproof buildings to be built to the line. Thus on narrow city lots fireproof construction is a decided advantage.

Roof as well as walls should be of non-combustible materials, such as concrete, tile or cement asbestos shingles, either of which may be obtained in a number of attractive colors.

Maintenance costs are practically negligible with the use of fire-resisting masonry. Painting is eliminated, except for an occasional touching up of window frames, sills and trim. Even these may be built of concrete and the upkeep reduced to a minimum.

The garage usually appears in a general view of the property. Let it, therefore, possess a beauty in harmony with its surroundings. Sharp contrasts between the design of the house and garage should be avoided. To secure unity of appearance some predominating feature in the house design is best incorporated in the lines of the garage.

DOUBLE GARAGE OF CONCRETE BLOCKS AND ROOFING TILE

One of the outstanding advantages of the use of concrete masonry is the ease with which it lends itself to almost any

GARAGE FOR GUY D. BAYLEY

GARAGE OF STUCCO AND TILE

architectural treatment. With Portland cement stucco—the usual method of surfacing—an almost endless variety of delightful colors and finishes may be attained.

Small building lots and the desirability of locating the garage in the most convenient position have resulted in the development of the attached and semi-attached types. With these fire-safety is an absolute necessity. Where the garage is an integral part of the house costs are reduced by the common use of walls and, often, the roof. Likewise the extra cost of heating is lessened by extending the system to the garage.

Where building codes prohibit connecting doors between house and garage, a narrow covered passageway may be built between the house entry and the garage.

If the lot slopes slightly toward the street, the garage is often conveniently located in the basement. In this method it is of vital importance that the garage roof be fireproof. While a reinforced concrete slab is the best means of securing this, a cement plaster ceiling applied on metal lath is likewise effective.

STUCCO GARAGE WITH TILE ROOF

Garages constructed to provide storage space for two or more cars are becoming increasingly popular. Their cost of building per car is relatively less than for the one-car garage, and the extra space can usually be rented. Often the rental more than covers interest charges, taxes and other expenses on the entire building, giving the owner storage space for his car practically without cost and often with considerable cash return. Should the owner prefer not to rent out space, the double garage is still desirable, providing a handy workroom and hospitable accommodations for visiting cars.

A width of not less than 10 feet should be allowed each car. A length of less than 20 feet is seldom advisable, and for larger cars 22 or 24 feet is desirable.

The community or multi-car garage is rapidly gaining popularity in the densely populated residential sections. In principle it resembles a number of single-car garages side by side with heating arrangements and other facilities in common. In each stall, with its own doors, water pipes and lockers, sufficient space is usually provided for the storage of supplies.

The community garage often represents the most economical use of space for automobile storage purposes, and in many localities offers an excellent opportunity for investment. By paying some attention to its design and landscaping it can be made decidedly attractive.

HOUSE FOR MR. GEHRI, TACOMA, WASHINGTON

SILAS E. NELSEN, ARCHITECT

THIS DIMINUTIVE FOUR-ROOM DWELLING HAS BROUGHT ITS DESIGNER NATIONAL FAME. BESIDES BEING ILLUSTRATED IN MANY ARCHITECTURAL AND BUILDING JOURNALS THE PLANS HAVE BEEN DUPLICATED IN NEARLY EVERY LARGE CITY IN THE UNITED STATES

THE ARCHITECTS' SMALL HOUSE SERVICE BUREAU

By Robert T. Jones

THE Small House Bureau began as an experiment. Now, after eight years of experience, we have an opportunity to see what has been done. The experiment was an attempt on the part of a group of architects to see how they could contribute anything to the solution of the small house problem.

At that time the designing of small houses and the control of their construction was very largely in the hands of material dealers. For years they had supplied a stock plan service, including technical documents which, more often than not, were unworthy. From the point of view of good architecture houses built from these plans were often wholly unsatisfactory.

Studying this situation, a group of architects believed that they could prepare the technical documents for a group of small houses which could be distributed in competition with existing stock plans, bringing to the small home builders of the nation this minimum of good architectural service.

It was admitted that the small home builder would not employ the individual practicing architect, for reasons which were satisfactory to him and which, of course, are familiar to all architects. There was, of course, and there still exists an academic objection to stock plans in that they involve repetition and in that they are not devised particularly to suit individual requirements.

However, in a situation where the tastes of a very large majority of home builders seem to be identical and with a definite limitation of the amount of money to be expended, it was believed that this academic objection to a stock plan service was not tenable.

It was hoped that through a widespread program of education home builders might not only be inclined to subscribe to this better technical service, but that they could be brought in the end to employ the local practicing architect if for nothing more than to write the specifications and supervise the construction where bureau plans were used.

The application of this formula, running through a period of eight years, has produced results that are inspiring. All over the nation houses have been built from designs supplied by the Architects' Small House Service Bureau. There is a growing tendency, stimulated by the propaganda of the Bureau, to employ architects to supervise the construction of these houses.

We believe the contribution the Small House Service Bureau has made to improve the taste of home builders, to make them conscious of the material advantages of building from well organized plans and specifications, has had an enormously beneficial effect. The results can be seen in the residential districts of practically all of our cities and towns, particularly in the East and Middle West.

In carrying on its program of education, the Bureau has secured the co-operation of a large number of important newspapers that each week carry designs and technical matter relating to home building. The Bureau also publishes a magazine which has a national distribution almost exclusively among prospective home builders.

Since the first nucleus of the Bureau, which was formed in Minneapolis in 1920, the organization has been extended with

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DESIGN FOR SMALL HOUSE BY A. I. A. SERVICE BUREAU

Regional Bureaus in all the important centers of the country, excepting the South and the South Pacific regions. Plans are in progress at the present time for the incorporation of Regional Bureaus to serve these districts, with particular reference to the special local conditions surrounding the building of homes.

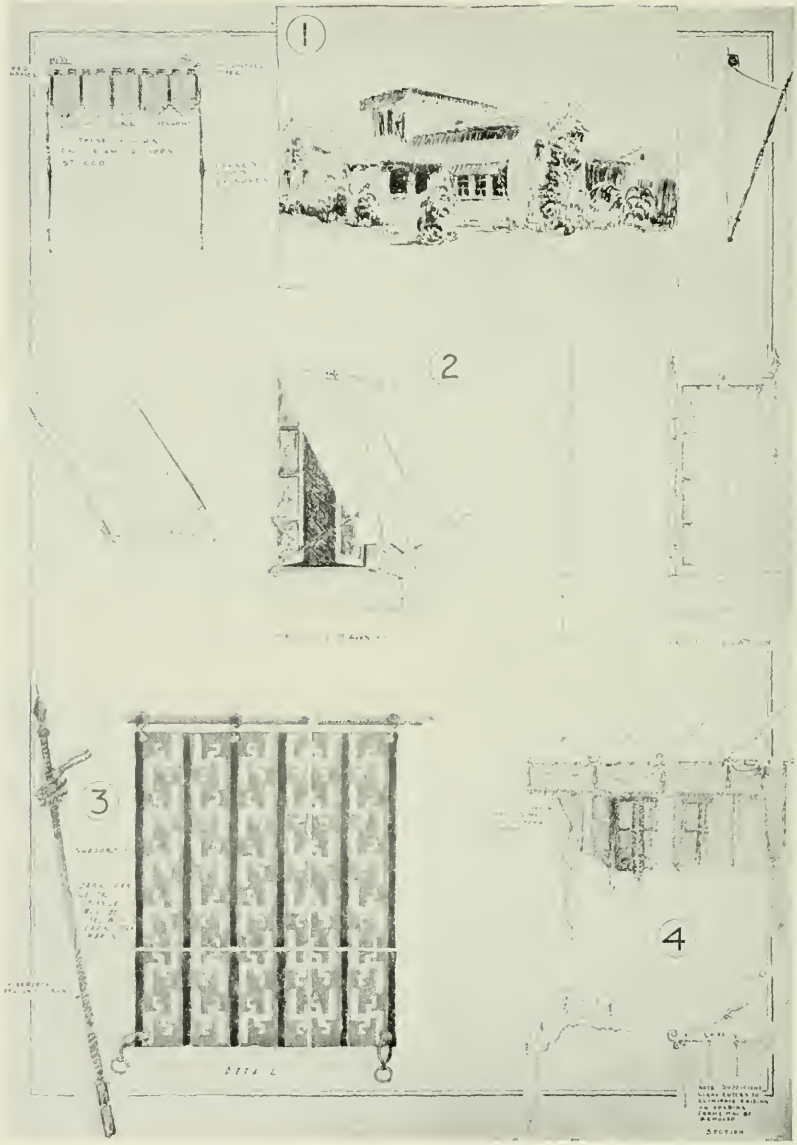
The Bureau is constantly at work in an endeavor to build up in the minds of home builders an acceptance of architectural service of the most complete order, to warn them against inadequate technical service of every kind, and to preach the doctrine of sound construction.

Under the control of the American Institute of Architects and with the endorsement of the Department of Commerce the work of the Bureau has been kept on a high plane of service, completely detached from subsidy by the building material interests. At the same time the Bureau work has been made possible to a very important extent through the co-operation of manufacturers' associations and by individual manufacturers throughout the country.

The accompanying illustrations are indicative of the general character of the small house design for which the Bureau supplies service.

Down—Not Up

Skyscrapers in America may continue to reach the clouds, but news from modern Paris is to the effect that, in order to relieve congestion, they are building down into the ground. A network of underground passages for cars, pedestrians and small freight has been proposed by one of the Paris city officials. The project includes the construction of ten miles of tunnels, moving sidewalks and moving freight carriers. Engineers see no difficulty, but the cost would average $2,000,000 per mile. All construction would have to be done below the level of the subways, which form a spider's web under the city's surface.



TYPES OF AWNINGS FOR SPANISH HOUSE

DESIGNS SUBMITTED IN COMPETITION CONDUCTED BY COTTON-TEXTILE INSTITUTE

AWNINGS ADD COLOR AND BEAUTY TO THE MODERN HOME

WITH all the progress that has been made in this country in developing a typical American style of architecture, the importance of awnings as something more than an optional accessory seems to have been overlooked by many persons. Architects have improved residential designs, but in many instances it does not seem that the value of awnings has been sufficiently stressed or understood.

Awnings ought to be just as much a part of the plans for a new town or country home as are the specifications for a fireplace, chimney, bathroom and the roof. They are a seasonal necessity and are not merely a decorative afterthought. Their decorative value increases both the comfort and attractiveness of a dwelling and it has been known to have a very real dollars-and-cents value in making a building more rentable and desirable.

Last year the Cotton-Textile Institute conducted a competition for a style of awning best suited for Spanish, English, Colonial and other types of houses.

The most acceptable designs were submitted in the Spanish group, for it is here the awning seems to be in its element. Some of the prize-winning designs are shown on the opposite page. No. 1 was awarded first prize. It is by Donald Tuttle.

The design is characterized by extreme simplicity, consisting merely of a shade carried by a spring roller, with the corners held in place by spears of a decorative design. But, like many of the most simple things, it was at the same time a marvel of ingenuity and practicality. For with the lower ends of the spears at fixed points, as the awning is drawn out from the roller the spear heads lower themselves automatically, so that increased protection from the sun is afforded in two ways: by the increased amount of protective material, and by the lowering of the outer edge of the awning.

The design presupposes a stucco finish of cream or ivory, and the awning is a combination of red, black and yellow. The roller has a cover of lead-covered copper decorated in red enamel.

Manufacturers state that the growing popularity of awnings is chiefly due to the architect whose influence is felt in combinations of colors and designs of painted awning stripes. The basic fabric usually recommended for ordinary awnings is 8-oz. army duck. It may be in conventional stripes, either painted or woven, or in some all-over decorative pattern to harmonize with the style of the building.

Wrought iron tracery and pylons by Michel & Pfeffer Iron Works

HOUSE OF GEO. A. NEWHALL, BURLINGAME, CALIF.

LEWIS P. HOBART, ARCHITECT

DECORATIVE WROUGHT IRON IN DOMESTIC ARCHITECTURE

WROUGHT iron is taking its place in the home with the same elements of decorative value as lighting fixtures, furnishings and equipment. It has come to serve so many purposes, useful as well as ornamental, that its place seems fundamentally secure.

Architects admit that a few pieces of wrought iron, carefully worked out with attention to detail and judiciously used, will do far more toward enriching the appearance of a house than an oversupply of cheap ornamentation, bright-colored stucco and imported tiles.

Bulk in wrought iron counts for little; it is the feeling for grace and beauty of line that makes it distinctive and charming. Otherwise, it would not be at all suitable for the living room, hallway, stairs or other interior spaces of the house. Well designed and executed in a craftsmanlike manner, it adds an undeniable atmosphere to any home.

Iron-made objects of every variety are available for the embellishment of the exterior and interior of the home of whatever style. There are fences and gates, stoop, stair and balcony railings, window grilles, as well as foot-scrapers, door knockers, hinges, shutter fasteners, weather vanes, house numbers, letter boxes, lanterns for the exterior, to say nothing of such items as balcony and stair rails, electric lighting fixtures for walls and ceiling, bridge, floor and table lamps, candlesticks, console tables and mirrors, fireside benches and chairs, smokers' accessories, mirrors, small tables, andirons, fire tools and fenders, fire screens and curtain poles and brackets.

Gates of wrought iron between living room and dining room or between living room and hallway frequently take the place of French doors. The same material now largely substitutes on the terrace or porch for wicker, reed or rustic furniture.

The English style house calls for but little iron work, though such pieces as the following are commonly used: Shutter hooks and hinges, shoe scrapers, door nails, door handle, lock plate and hinges, terrace rails, driveway gates, gutter straps and brackets, wrought iron lanterns bracketed out from the wall, tie-rod and ornamental washer for a high chimney.

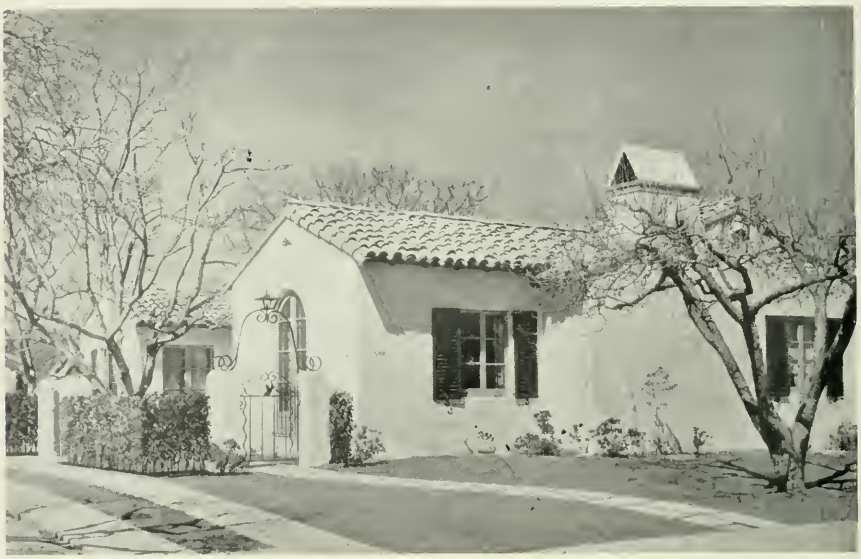
The English interior suggests an iron stair balustrade, often with the handrail made of iron, fire screen and tools, andirons, wrought iron candlesticks, torches and chandeliers, casement window fasteners, curtain rods and brackets.

The Spanish and Italian style houses suggest for the exterior treatment balconies and window grilles, flower-pot holders, ornamental brackets, wrought iron arches and edgings for windows and locks, terrace rails, grates and lanterns; and for the interior, in addition to the articles quoted for the English house, wrought iron chairs or table braces, gates and arches between rooms.

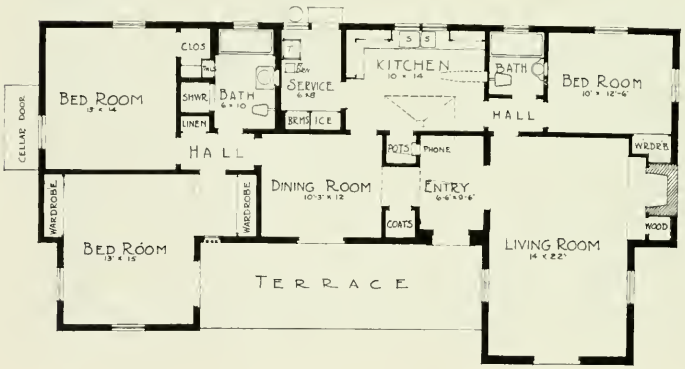
For the Mediterranean type house many different pieces of occasional furniture are now being developed in wrought iron, such as console tables, coffee tables, telephone sets, magazine racks, lamp bases, plant stands and the like, all with Spanish or Italian accent.

Velvets have always been the traditional textile to use with iron chairs or benches, but with the increasing use of iron this material is giving way to leather, cretonne or taffeta. A long wrought iron bench with velvet cushions is a delightful piece to place before a fire in the living room, where it serves the needs for beauty and ornament.

Lighting fixtures of all kinds are made



A SPANISH BUNGALOW IN TOLUSA LAKE PARK, LOS ANGELES
Sexsmith and Wade, Architects



NOTE ORNAMENTAL IRON GATE AND ELECTROLIER. THE PLAN SHOWS A RATHER UNUSUAL TREATMENT WITH THE ENTRANCE FROM THE TERRACE AT THE SIDE.

from wrought iron and in the California house create an appropriate atmosphere in the interior and on the exterior alike. Hanging lanterns for the Spanish hallway have a picturesque quality, with their pierced metal tops and many faceted sides, and odd lanterns of wrought iron are available for use outside the entrance door.

The torchere also lends itself to very attractive design in wrought iron, assuming a delicate grace that adds charm to any room. The same may be said of floor lamps and various styles of wall brackets and sconces.

The well-equipped fireplace always displays the art of the iron craftsman, with its andirons, tongs, shovel and brush, screen and fender and even the wood basket or

oal scuttle. These are not only decorative, ut, when well designed, add no little at- nospheric charm to the room.

The ability of wrought iron to resist the lements commends it for porch, terrace and atio use as well as high utility in the gar- en. Every furniture accessory for these paces may now be obtained in wrought ron.

Along with the Spanish vogue in this ountry has come a definite growth in the se of wrought iron gates and grilles both nside and outside the house. These orna- ental pieces have even been carried into he garden, where they perform a most en- aging function.

The Quantity System Today

THERE are probably not many architects or contractors today, especially n the larger cities, who are not familiar with the Quantity System. Most architects and many contractors are in sympathy with the movement, although there are still some who oppose it. In San Francisco, one of the first architects to use the quantity survey system was the late Geo. Alex Wright, at that time senior member of the firm of Wright, Rushforth & Cahill.

Briefly, the theory underlying the system is, that the owner furnish the bidder a list, or survey, of quantities required for any construction operation based on plans and specifications prepared by his architect or engineer. Any variation from this survey developing during construction, whether it be addition or omission, is subject to adjustment under agreed terms of contract. It will be seen that instead of the numerous quantity surveys made by general and subcontractors there will be only one: that made at the owner's expense and used by all bidders.

TRANCE, WOLFSKILL RESIDENCE, SAN FRANCISCO
Bliss and Faville, Architects

STAIRCASE, SPARBARO RESIDENCE, SAN FRANCISCO
Powers and Ahnden, Architects

Electrically equipped throughout

HOUSE OF J. R. BEARWALD, SAN FRANCISCO

Masten and Hurd, Architects

ELECTRICITY IN THE HOME

By
C. E. Allen

ELECTRICITY, the faithful silent servant, has brought about an ever-increasing number of improvements in living and working conditions that have eliminated many of the burdensome features formerly thought to be an inseparable part of our daily routine. The wide-spread adoption of these aids has brought about reductions in the cost of electric service, which in turn have made possible further electrical replacements of the former laborious methods. This is especially true of electricity used for heating purposes, such as cooking, water heating and air heating.

The Western States are particularly adapted to electric heating, due to the mild winters and low electric current costs. Under such conditions, the cost of cooking, water heating and air heating of homes entirely by electricity is not prohibitive. When all factors are considered, such as elimination of labor, dirt, fire hazard, the saving of space and the added comfort to be had from electric heat, the cost comparison between other fuels and electricity is often favorable.

Besides the heating of homes there are many other applications that deserve attention. In schools, offices, apartment houses, camps, hospitals, shops, etc., it is often very possible to save all expense connected with firing boilers, fuel storage, ash removal and similar charges. This saving, together with the low initial cost of an electrified heating system, frequently makes electric heat an economy as well as a great convenience.

Regardless of climatic conditions, there are numerous applications of electric heat for such places as isolated offices in warehouses and factories, garages, aeroplane hangars, etc., whose distance from other heating sources, danger from fire, or lack of ventilation facilities make imperative a supply of heat that meets this condition safely and adequately.

In considering the advantages of electric air heating, as against other means of furnishing heat, other factors and operating costs must be taken into consideration for a fair comparison. It is only under favorable circumstances that electricity in general housekeeping would measure up in direct fuel cost with other means of heating. The increased use of electricity for heating is a result of its many other advantages, such as: low first cost; no upkeep costs; saving of storage space; cleanliness; ease of operation; automatic control; convenience; healthfulness; efficiency.

The accompanying pictures of the J. R. Bearwald home in St. Francis Wood, San Francisco, show the possibilities of a harmonizing effect in electric heating equipment. The heaters are made to fit into any 4-inch wall or partition in a very simple manner. Their comparatively small vertical space requirement (about 21 inches) permits easy installation under windows of ordinary height above the floor.

The front grille and wall box supplied with the heater are of heavy steel. The grille is perforated so as to permit free circulation of the air. The center portion is extended 1¼ inches, so there is no possibility of furniture or curtains in front of the heater shutting off the air circulation.

The design of the air passages throws the heated air into the room and keeps the wall box at a low and safe temperature.

The heaters have no lodging place for dirt and germs, and their open construction allows easy access for thorough cleaning. The air passages are large and allow free

egress of air so that dust and dirt cannot accumulate easily.

The grille is finished in hardware bronze. This unobtrusive finish harmonizes effectively with the interior decoration of the room.

All rooms in this home are heated by electricity. The kitchen is equipped with a large, all-white enamel super-automatic electric range, as well as a large electric refrigerator. A 52-gallon electric water heater is located in the basement with return circulation system incorporated, supplying all hot water outlets with instantaneous hot water.

The comments of the owners are very enthusiastic with respect to their all-electric home, and the architects, Masten & Hurd, refer to this house as one of their model achievements, bespeaking the trend of the times in domestic architecture.

LIVING ROOM, HOUSE OF J. R. BEARWALD, SAN FRANCISCO
Masten and Hurd, Architects

Building Code for Termite Pest

COMPLETE insulation from the ground of all untreated woodwork of a building is the only effective preventive or remedy against attack by subterranean termites or "white ants," which are present in many areas of the United States, according to Dr. T. E. Snyder of the United States Department of Agriculture, who has studied the pest. Doctor Snyder, a specialist in forest entomology, points out that the small householder with a modest home of frame construction is the one most likely to suffer through termite attacks, and at the same time is the one who will be most oppressed if serious injury follows the termite invasion. For this reason he suggests certain changes in the building codes of cities, which, if adopted, would prevent injury by the subterranean varieties of the pest.

There is also a group of termites that fly nd attack the wood directly. And for these horough fumigation is required if the amage is to be checked. In new buildings is well to insure against termite damage y impregnating all foundation timber with coal-tar creosote and other woodwork ith zinc chloride, or some other equivalent reservatives. These treatments also serve

BED ROOM, HOUSE OF J. R. BEARWALD, SAN FRANCISCO
Masten and Hurd, Architects

s a check on the subterranean termites.

Insulation and impregnation of timbers ill cost a few hundred dollars additional the construction of a building, but Doc- or Snyder believes this should be consid- red in the light of an insurance. It may ave thousands of dollars in repairs and re- lacements later. It is much simpler, he mphasizes, to keep termites out of a build- ng than it is to get rid of them or to repair he damage they may do.

The need for "insulation" in building construction arises from the habits of the insect. It is soft-bodied and requires moisture to keep it alive and reproducing. Therefore it can not live in dry timber without a means of returning periodically to the soil for moisture. The termites do not expose themselves in the open, but have a habit of boring into wood below the ground level and then working upward. If masonry interferes with the progress of the termites toward wood they commonly build a protective tunnel along the face of the masonry from the ground to the wood. This is composed of earth and pulverized wood and is a good sign of termite activity. In case such tunnels are observed on the underpinning of a house they should be destroyed and the ground from which they emerge should be soaked with poison. "Insulation" consists in providing a layer of concrete between untreated wood and the

earth and interposing a metal barrier which projects from the foundation walls below the wood and prevents the building of these tunnels.

"One of the simplest and most effective means of prevention of attack by termites would be to modify the building regulations or codes of various cities so as to include a few simple rules in the mandatory code," says Dr. Snyder.

His suggestions for modification include among others the following provisions:

"Wood or fiber products, when not impregnated with an approved preservative, shall not be placed in contact with the earth, or within 18 inches thereof, excepting wood columns or posts over a concrete floor, which columns shall be provided with noncorroding metal or concrete base plates or footings 6 inches above the floor. This applies to steps, which shall be laid over a concrete base, projecting at least six inches beyond the supports of the steps.

"Timber to be used in contact with the earth shall be thoroughly impregnated by a standard pressure process with coal-tar creosote or other equivalent preservative. Timber should be completely framed before treatment, whenever possible, but when cutting after treatment is unavoidable the surface cut shall be thoroughly coated with the preservative.

"Masonry foundations and footings shall be laid in Portland cement mortar. Foundations built up of masonry units, whether hollow or solid, shall be capped below woodwork with at least one inch of Portland cement mortar, or mortar and slate, or solid or joined noncorroding metal, or with equally efficient seal.

"In the case of frame buildings, a metal termite shield shall be provided, continuing completely around the tops of the masonry foundation, including all pillars, supports, and piping, below the woodwork of the building, on both the inside and the outside surfaces. Such a shield may be formed of a strip of noncorroding metal, firmly inserted in the surface of the masonry, or between the foundation and the wood, with the projecting edge bent downward at an angle of 45 degrees and extending horizontally at least 2 inches from the faces of the foundation.

An Appeal for the Classic

ANDREW W. MELLON, Secretary of the Treasury, in a speech at Founders' Day exercises of the Carnegie Institute, Pittsburgh, made an eloquent appeal for the adoption of the classic style for all government buildings. Secretary Mellon further emphasized the need for concerted action in carrying forward the beautification plan for the city of Washington, to the end that the city may express what President Coolidge has termed it—"the soul of America."

Congress has made the necessary appropriation to initiate this work and to carry out the most important features of that long-neglected plan of Washington and L'Enfant for the development of the city. The responsibility for carrying out this plan, by the purchase of sites and the erection of buildings, was placed by Congress on the Secretary of the Treasury and has become, therefore, an integral part of Treasury activities.

"There are many reasons," said Mr. Mellon, "why we should give our support to the effort to rebuild our national capital. Not the least important is civic pride. Until recently, America has been in the frontier stage as nations go. We were too busy about the hard realities of existence to have much time for the amenities. But now we have the opportunity and we have also the resources to raise the standard of taste in this country; and the extent to which this is being done has no parallel at present in any country in the world. Nowhere are the arts of architecture and landscape engineering being practiced more extensively and successfully than in America.

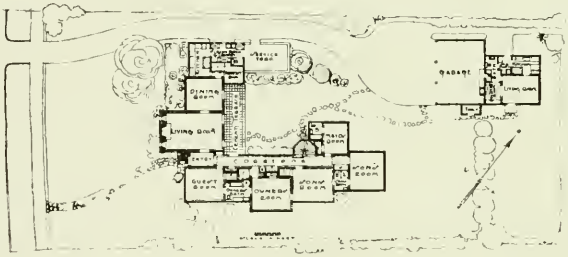
"It has been said that in evolving the skyscraper, we have made the only original contribution to architecture since the Gothic. Certainly, in adapting architecture to the needs of modern conditions and crowded spaces, we have produced something that is expressive of human aspiration and human need. Judged by that standard, the Woolworth Building is a work of art, both because it is beautiful in itself and because it expresses the needs and aspirations,

[Please turn to Page 105]

Photo by George Haight

HOUSE OF M. D. ARMISTEAD, BEVERLY HILLS, CALIFORNIA

WITMER AND WATSON, ARCHITECTS

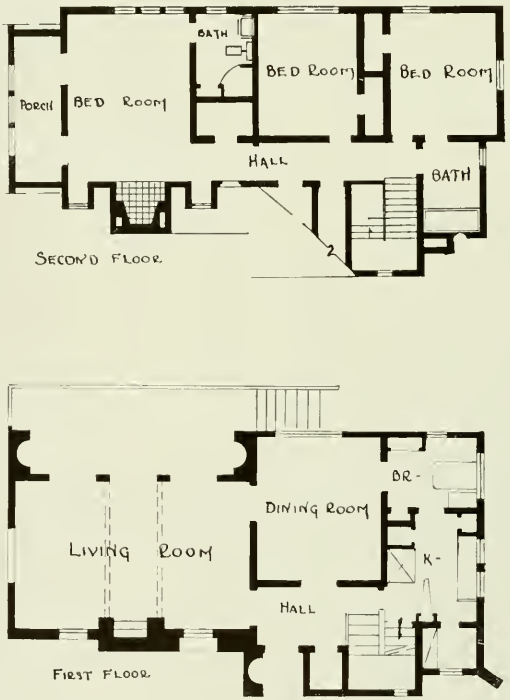


PLAN, HOUSE OF M. D. ARMISTEAD, BEVERLY HILLS, CALIFORNIA
WITMER AND WATSON, ARCHITECTS

Photo by Waters and Hainlin

HOUSE OF MR. AND MRS. WERNER SCHUUR, OAKLAND

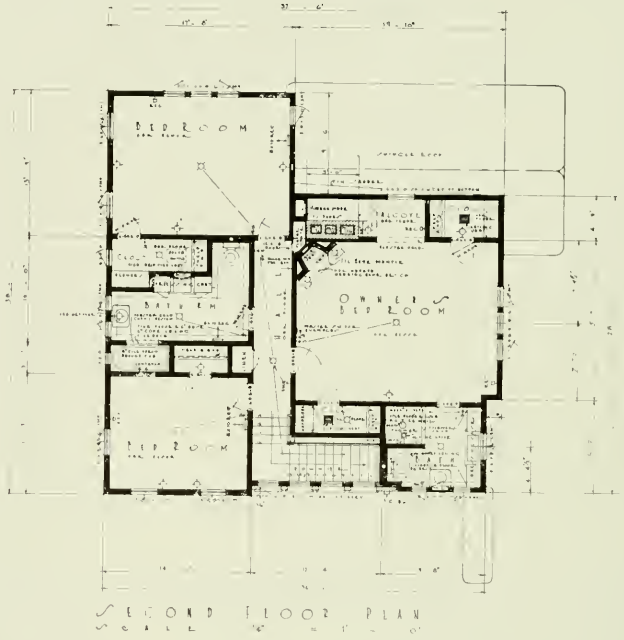
FREDERICK H. REIMERS, ARCHITECT



PLANS, HOUSE OF MR. AND MRS. WERNER SCHUUR, OAKLAND
FREDERICK H. REIMERS, ARCHITECT

HOUSE ON THE SANTA BARBARA ROAD, BERKELEY
B. REED HARDMAN, ARCHITECT

ENTRANCE, HOUSE OF FRED SWARTS, LONG BEACH, CALIFORNIA
JOSEPH H. ROBERTS, ARCHITECT



PLANS, HOUSE OF FRED SWARTZ, LONG BEACH
JOSEPH H. ROBERTS, ARCHITECT

oto by Albert E. Cawood

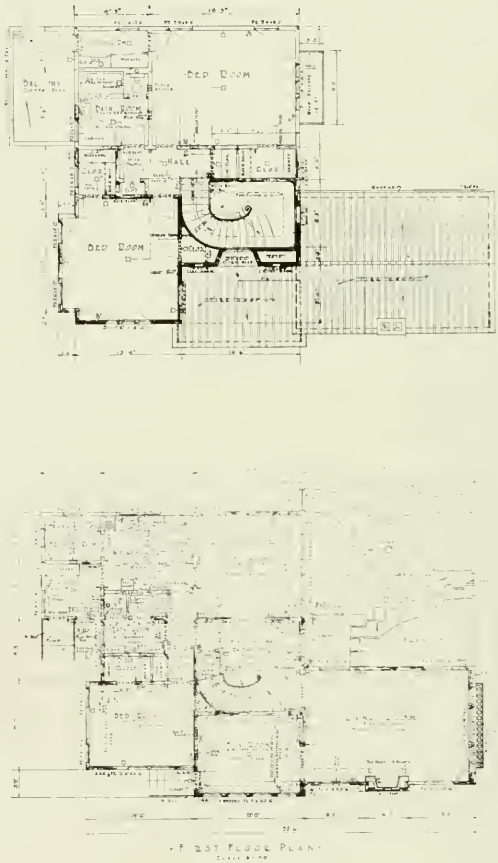
LIVING ROOM, HOUSE OF L. B. SWARTZ, LONG BEACH, CALIFORNIA

JOSEPH H. ROBERTS, ARCHITECT

oto by Albert E. Cawood

PATIO, HOUSE OF T. O. HUNTER, LONG BEACH, CALIFORNIA

JOSEPH H. ROBERTS, ARCHITECT

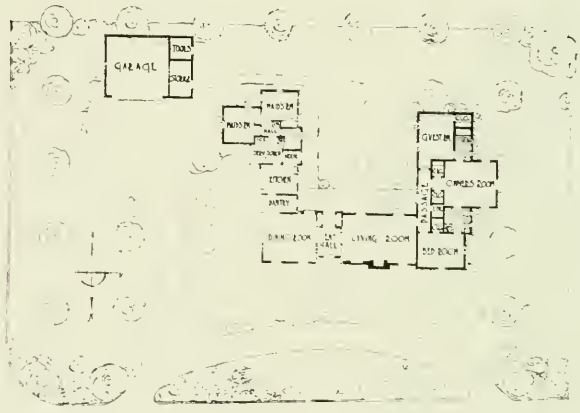


PLANS, HOUSE OF T. O. HUNTER, LONG BEACH
JOSEPH H. ROBERTS, ARCHITECT

o by George Haight

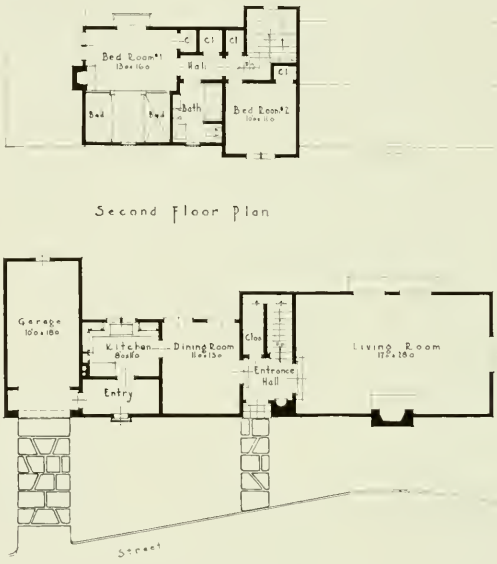
HOUSE OF MR. AND MRS. G. V. BAER, MONTECITO, CALIFORNIA

WITMER AND WATSON, ARCHITECTS



PLAN, HOUSE OF MR. AND MRS. G. V. BAER, MONTECITO, CALIFORNIA
WITMER AND WATSON, ARCHITECTS

HOUSE OF MR. AND MRS. EDWIN L. SNYDER, BERKELEY, CALIFORNIA
EDWIN L. SNYDER, ARCHITECT



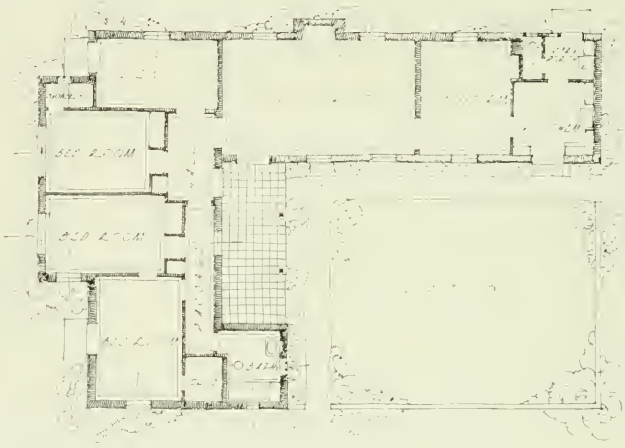
PLANS, HOUSE OF MR. AND MRS. EDWIN L. SNYDER, BERKELEY

EDWIN L. SNYDER, ARCHITECT

HOUSE OF MR. AND MRS. EDWIN L. SNYDER, BERKELEY
EDWIN L. SNYDER, ARCHITECT

Photo by George Haight

RANCH HOUSE FOR DR. R. M. MOOSE, SAN BERNARDINO, CALIFORNIA
WITMER AND WATSON, ARCHITECTS



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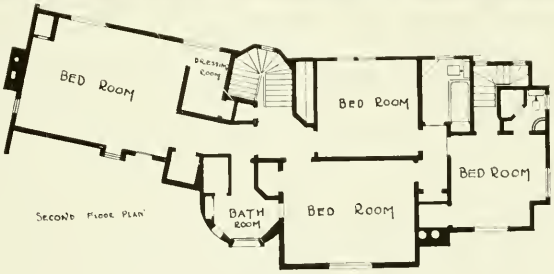
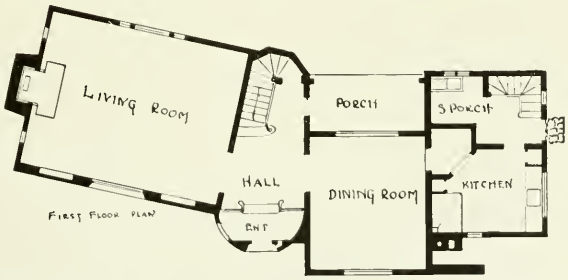
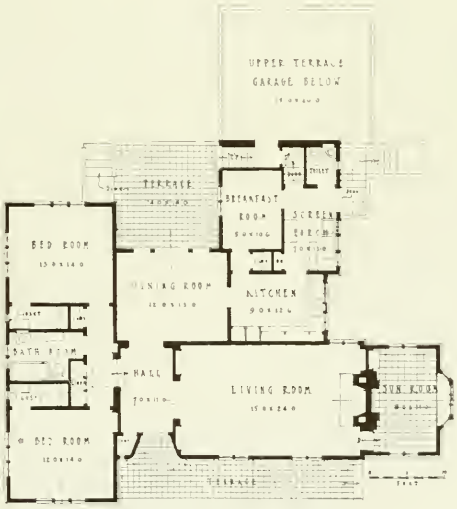
WITMER AND WATSON, ARCHITECTS



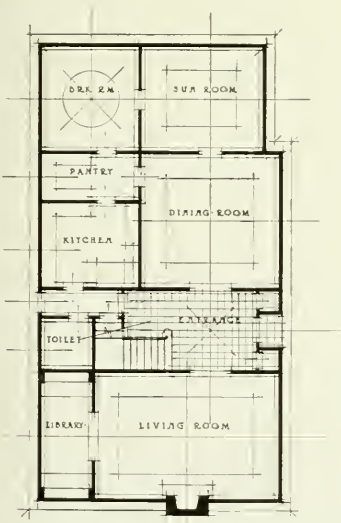


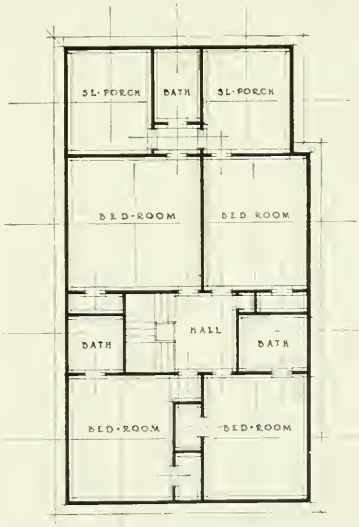
HOUSE OF MR. AND MRS. MURRAY FOSTER, OAKLAND

FREDERICK H. REIMERS, ARCHITECT



HOUSE OF DR. I. E. HARRIS, ALTADENA, CALIFORNIA
BENNETT AND HASKELL, ARCHITECTS

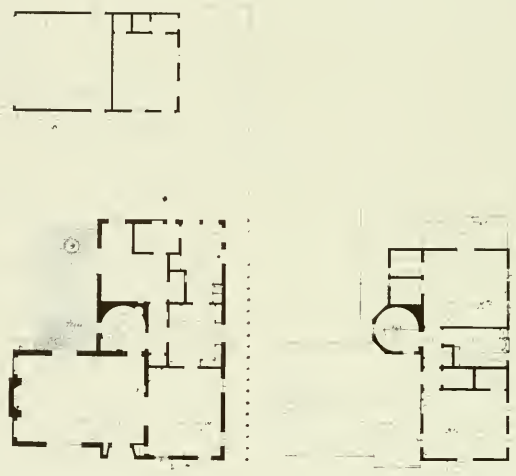




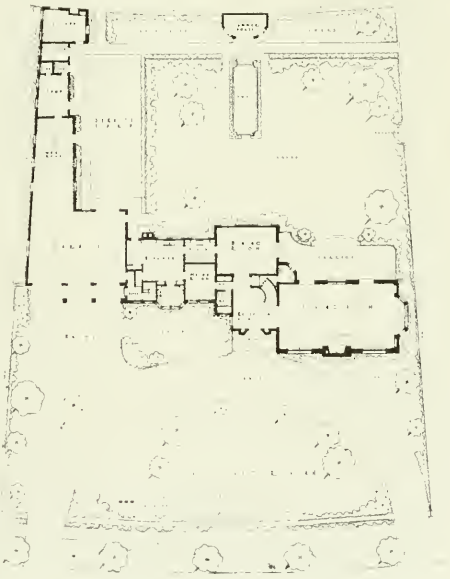
HOUSE OF F. J. SCHUMAN, BERKELEY
B. REED HARDMAN, ARCHITECT

HOUSE OF F. L. NAYLOR, BERKELEY
W. H. RATCLIFF, JR., ARCHITECT

HOUSE OF L. J. MYGATT, SAN MARINO, CALIFORNIA
BENNETT AND HASKELL, ARCHITECTS



PLANS, HOUSE OF L. J. MYGATT, SAN MARINO
BENNETT AND HASKELL, ARCHITECTS



HOUSE OF W. E. BABB, LONG BEACH, CALIFORNIA
JOSEPH H. ROBERTS, ARCHITECT

MY EUROPEAN IMPRESSIONS

By
C O Clausen, Architect, San Francisco

XI. POTSDAM

SUMMER PALACE OF THE FORMER KAISER

ABOUT seventeen miles from Berlin lies the beautiful city of Potsdam, in which is situated the summer palace of the former Kaiser, and which was occupied by him most of the time in preference to the palace at Berlin.

The Potsdam palace was built by Frederick the Great in 1769. The exterior Renaissance treatment is most elaborate and has an effect of royal splendor. Some of the two hundred apartments are richly decorated and in most cases overloaded with Rococo ornamentation. The palace has within its walls a cozy little theater in which performances were given exclusively for the royalty and their guests.

One of the interesting relics of the palace is a huge clock with many trumpets projecting from the top and a set of drums concealed below. On my visit here the attendant set the clock in operation and the music of a typical Prussian military march sounded forth in loud tones. I am told that during the French occupation Napoleon slept in the palace and was awakened suddenly by the sounds of this clock, and recognizing the German music, imagined that the enemy was approaching, headed by its military band. Being of a restless nature, the Emperor immediately left and spent the remainder of the night at San Souci, nearby.

San Souci is a small, charming palace, also built by Frederick the Great as a sort of refuge from the affairs of state. It is a long, low building, somewhat Italian in design, and overlooking numerous terraces of flowers and shrubbery to a beautiful park below. Amid the trees of this park is a mausoleum in which reposes the remains of the former Empress of Germany, wife of the exiled Kaiser.

In the Garrison Church at Potsdam, is the tomb of Frederick the Great, which Napoleon visited in search of the sword of the great soldier of Prussia. No ornaments or trophies of any kind, however, were found to have been deposited in the crypt. The treasure was discovered hidden in the palace by the Emperor, who ordered it sent to Paris as a souvenir. "What a wonderful present for the Invalides," he said to one of his generals; "they will be delighted to have in their possession the sword of him who beat them at Rossbach." The general remarked that if he were in the Emperor's place he would not be willing to part with it, but would keep it for himself; whereupon Napoleon answered: "Mr. Giver-of-advice, have I not a sword of my own?"

INFLUENCE of GOOD ARCHITECTURE on MOVING PICTURE SETS

By Jesse L. Lasky

THEY used to say that the camera never lies!

As a matter of truth, the camera is one of the greatest fabricators n the world, and we should be extremely hankful for that fact.

Without this charming inexactitude in notion pictures, we would be denied much hat is now beautiful, thrilling and im- ɔressive.

The business of he motion pic- ure is to enter- ain. The really ntelligent por- ion of an audi- ence does not concern itself vith questions as o how an effect s obtained. They re interested nly in being musedi. Every- ody knows, and he motion pic- ure producer ad- nits readily, that ome of the finest effects in films re obtained thru he ingenuity of clever techni- ians. What does t matter? The effect is real. If t is not, the man esponsible is a ungler.

HOUSE OF ESTHER RALSTON, LOS ANGELES

Persons who allow their curiosity concerning the secrets of picture making to spoil their enjoyment of a film are like the man who never hears the music from a graphophone because he is listening to the squeaking of a needle. Practically everything remarkable seen on the screen is possible in real life. When it is done for the screen, technicians bring their knowledge to bear to make things easy for the actor. Two reasons are given for this: one so that the camera can photograph it; the second is to provide the necessary safety factor. Audiences today are not altogether Roman. They have no desire to see men butchered to make a holiday.

In real life, the leaps of Douglas Fairbanks are entirely possible. So was the opening of the Red Sea as shown in "The Ten Commandments." So was the train wreck in "The Last Command." Those falling airplanes in the spectacular

"Wings" were real. They actually fell. People are carried away in avalanches as shown in "Wife Savers," and people do fight for their lives in blazing houses, as pictured in "Underworld." But to do these things in motion pictures, to protect the players and to make the whole pictureable for the camera, the best technical brains in the industry are called in. If their work is so poorly done that an audience could see how it was accomplished, the theaters would be empty in a month—and would remain empty. We are no longer in the Elizabethan age when the audience sat around on the stage with the players and watched them put on their costumes and rehearse their lines.

One of the most interesting branches of motion picture production is the building of structures—historical and modern—for sets. A set built for pictures is from fifty to one hundred per cent superior to the real thing in nine cases out of ten. Why? Because the man who built the real thing knew nothing about camera angles and the set builder has the camera perpetually in his mind.

Photo by Les Rowley

SWIMMING POOL, ESTHER RALSTON HOUSE, HOLLYWOOD

That is the reason why the beautiful old world structures of European countries are almost a total loss when it comes to picture making. From the outside, they are splendid, but take your company and your camera inside and you are likely to meet your Waterloo. You can't light them satisfactorily.

Take your company into the interior of a fashionable San Francisco home. To the naked eye, it will be beautiful, but get a

EDITOR'S NOTE—Mr. Lasky wrote this article for THE ARCHITECT AND ENGINEER. Considered an authority on the subject of motion pictures, much of the success of his productions is admitted by him to have been due to the care he has taken in constructing attractive architectural backgrounds.

limpse of it through the camera eye and ou will blush. The reason is simple—the olors are not photographic tones.

The "Art Department" of the Paramount udios does not make paintings. Instead, it esigns all of the settings used in our pro-uctions.

The motion picture industry—from the xecutives, the stars and the directors to the who has never given the exterior of her residence a thought, who has never worried about the convenient arrangements of the rooms, learns otherwise when she sees a picture in which attractive lines are presented.

Architecture and motion pictures go hand in hand. One helps the other. Good architecture in settings makes for improved pictures; the revealing of this good architect-

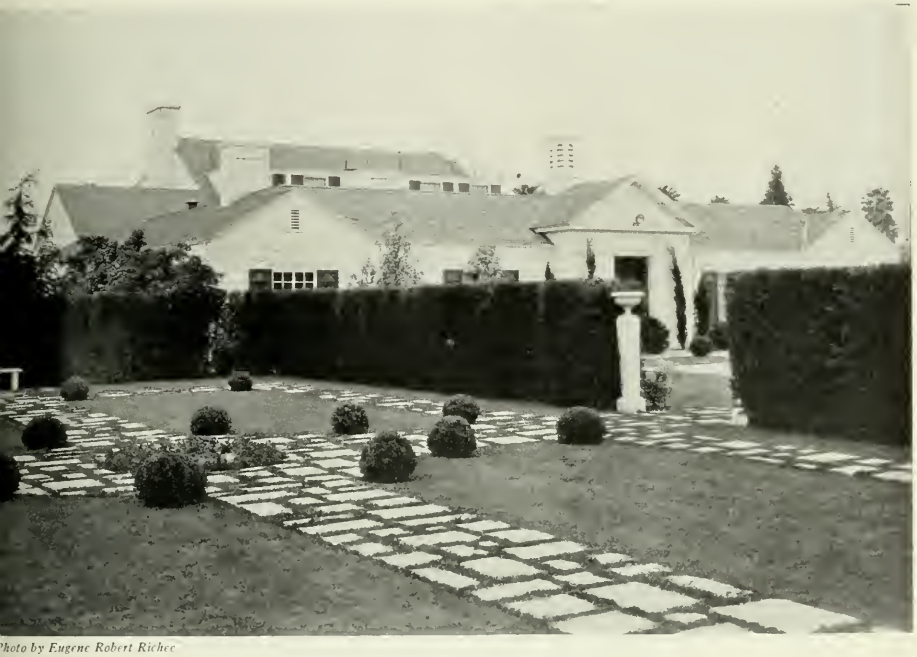


Photo by Eugene Robert Richee

ITALIAN GARDEN OF POLA NEGRI, BEVERLY HILLS, CALIFORNIA

roperty boys who carry around sundry odds and ends for use in certain scenes—oves beautiful homes. Their own resi-lences in southern California may be con-tructed along somewhat radical lines, but hey are none the less architecturally per-ect.

The desire for fine homes is impressed ıpon the general public through the con-tant showing of these architectural beauties ın the screens of the world. Mrs. Jones, ure brings forth a great desire from the witnesses.

Every studio in Hollywood is well equipped, so far as this line of work is concerned. In our studio, we have an architectural staff of twenty men, all trained in various lines of this work. Fifteen of these are registered architects, and the department is in charge of Van Nest Polglaze, for many years a builder and designer. His chief assistant is Edward Smith, also rec-

ognized by the profession in this line.

To this department goes a copy of every scenario to be filmed. The art director then confers with the technical director assigned to each producing unit, and with the director, on the type of settings desired.

These are listed, and rough black and white sketches are then made for the director's approval, showing not only the general appearance of the room, but entrances, exits, windows and the general lighting effects possible.

The rough plans then go to the individual workers who draft regular architectural plans for each set. These plans are worked out to the minutest detail. They are then blue-printed, and sent to the construction department, where the host of carpenters, plasterers, painters and other workmen do the actual construction.

Under the art department, too, is the department of set dressers. These men have the task of furnishing each setting with the small things to make it look natural—the pictures or prints on the wall, the flowers on the table, the drape over the piano—and a hundred similar small details which often pass unnoticed to the observer seeing the picture, but which contribute indefinably to the realism of the set as a whole.

A vast amount of research, as well as general knowledge and common sense, is necessary in all the work of the art department. Architectural magazines, and particularly THE ARCHITECT AND ENGINEER are consulted.

Then again, there is the matter of creating new effects in designing. Once in a while several types of architecture are interwoven into one, just to bring out an exceptional design.

As a result of this diversion from the cut-and-dried lines, we have received scores and scores of letters from builders and architects the world over asking us for blue prints of certain sets used in certain pictures. We are glad of this and welcome these letters, as they bring forcibly to our attention the value of a good architectural department in our motion picture work.

BIRD HOUSES BECOMING POPULAR

BIRD houses may not be exactly in season just now, but it is a good idea to give a thought this early to the subject in preparation for the time, not far away when these little friends will be looking for a place to go housekeeping. Building an ornamental bird house for the garden may even reduce the infestation that annually takes place about the chimney.

For some time, bird houses have been taking on new beauties. While migratory birds are said to prefer the diminutive brown hut resembling a log of wood, larger and handsomer houses appear each year.

But a lot of people like to make their own bird houses and some of them do pretty well at it, though they too often forget that the ideal bird house is brown and bark covered, with a small opening near the top. The commonest mistake made by the builder of bird houses, according to experts, is placing the opening on a level with the floor. The opening should be near the top, for a bird in building its nests likes to drop down to the floor from an opening near the roof of its little house. The wren's house is the smallest of all the bird boxes, and its opening must not be large enough to admit nest stealers, for predatory birds like nothing better than to take for their own use another bird's hidden home.

Vying with the dun-colored bird house is the gayly painted one. It may be gabled and filagreed, elaborately carved and adorned with ornamentation of original design. There are those who contend that birds will not use the house of brilliant color. Certain birds will not; others will. One bird lover wrote in despair to an ornithologist asking what she should do to attract birds to a well-placed, well-built, handsome bird house which they continued to ignore.

The expert suggested that mud and straw be rubbed around the entrance and over the roof. The next season four pairs of martins reared their happy families in the battered looking old box. However, there are those

[Please turn to Page 105]

KNOTTY PINE FOR HOME INTERIORS

By

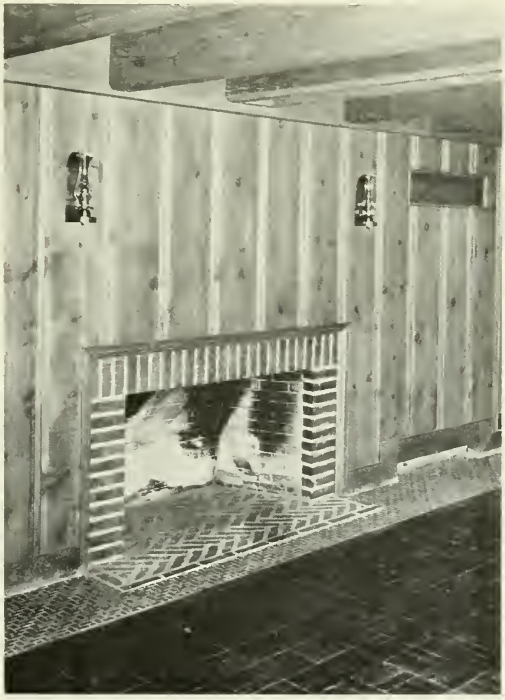
Hal A. Stonebraker, Architect

IT IS encouraging and a credit to our profession to see the progress that is being made toward acquiring natural charm rather than ramatic effect in domestic architecture. orward looking architects usually agree at we should make our architecture a logal continuation of the best traditions, at e same time keeping it free from archæogical imitations.

Good architecture depends upon two funamental princies — sound degn and good ste. Space will ot permit me to well at length pon these fundnentals, but I ant to leave a ew words of ution with you. o not concenate your efforts the exterior at e expense of e interior. The odern residence ust be planned a whole. A rmonious enmble must be eated both inde and out.

Charm is a rime requisite. 'e should not, owever, strive obtain charm y aiming to ake the setting ook as if it were centuries old," but rather by aiming to make the effect of it as pleasing as a great many of the famous old settings. Artificial and forced effects usually denote the work of speculative builders. Do not strive for the picturesque, regardless of structural and material values. Use materials with which you are familiar — materials which you know will give the genuine effects which we all so highly desire.

I have followed with growing interest the recent developments in the art of interior decorating. A decided tendency to capitalize on the natural defects found in the common grades of pine is in evidence throughout the country. These faults make readily possible the attainment of the most beautiful and unusual effects which were in vogue centuries ago and which are so much desired today. For immediate precedent one has only to delve into early Colonial architecture to find a rich accumulation of interiors



DETAIL OF A BILLIARD ROOM FINISHED IN KNOTTY PINE

artistically done in "knotty pine."

Aside from the genuine effects to be had with knotty California pine, it has many inherent characteristics in its favor—a texture that is soft and easy to work—a grain that is close, even and uniform—a color of light tone—a smooth satiny surface and a structure of minute cells, regularly formed and evenly spaced, and it is light in weight.

Of course it is well known that all the higher grades of California pine are available in large quantities and are eminently suited to interior finish, but it is with the lower grades, particularly grades numbers 2, 3 and 4 common, that we can obtain the most unusual and really beautiful effects. For interior finish it is, of course, necessary to select the boards from the lower grades of knotty pine, choosing them according to the ultimate results desired. The doors in my home were made of 2-inch dimension, covered with No. 5 Common 25/32-inch white pine boards.

It is not my purpose to recommend one species of wood or material in preference to others. I have merely outlined some pertinent facts that we should not forget when we want to secure genuine effects rather than flagrant imitations.

BUNGALOW OF SOLID WALNUT

THE builder of a hunting lodge, a bungalow or summer cottage, may want something unique, or he may wish to put up a building of inexpensive construction. Solid walnut for the exterior would be considered a novelty, although it would rarely be thought of as low cost material, yet it is actually newer and cheaper than conventional construction if veneer cores or rollers are used. This is especially true if a veneer mill is nearby, where the discarded cores may be purchased at a reasonable price.

The availability of this material for building purposes is due to the way veneer for furniture is usually made. The log is first soaked or steamed. It is then mounted on a huge lathe and turned against a knife which removes a continuous sheet of wood in the manner that a bolt of wide ribbon is unrolled. As the veneer is cut the log gets smaller and smaller until a point is reached where the work must be stopped. The piece that is left is normally 8 inches in diameter and from 6 to 10 feet long.

Further cutting is normally impracticable because the wood toward the center may have minute imperfections that would affect the quality of the veneer, although they do not affect the value of the core or roller for structural purposes.

In building a bungalow of veneer cores, the rollers are split down the center and used with the round side out. The builder places his sills, then puts a layer of roofing paper on each sill and sets the half-round cores on end on the roofing felt, spiking them through to the sills. At the top of the wall of half-round cores a two-by-four is spiked.

On the inside a layer of roofing felt is applied over the flat surface and this is covered with wall board. This gives a smooth surfaced interior. The layer of roofing felt between the upright pieces and the wall board makes the rooms tight, but they can be still further sealed against weather by V strips nailed between the cores on the outside of the building. The roof beams are carried well out over the walls to give a good overhang and prevent rain getting to the siding.

Although full round rollers check quickly in the weather, the half-round pieces are found to dry out readily and to be comparatively free from checks and cracks. And a coat or two of linseed oil protects the wood and leaves the natural pleasing walnut grain for an unusual outside finish.

PARTNERSHIP DISSOLVED

The partnership of the architectural firm of Kump & Johnson, Rowell Building, Fresno, has been dissolved and Arthur O. Johnson has returned to San Francisco. He is temporarily residing at 1541 Josephine street, Berkeley.

CERTIFICATE TO PRACTICE

Arnold Sutherland Constable, 169 Spencer avenue, Sausalito, has been granted a certificate to practice architecture by the California State Board.

BIRD HOUSES

[Concluded from Page 102]

who will not concede that the mud and straw had anything to do with the sudden use of the house, contending that the birds would have eventually found it to their liking.

But these birds are funny little things. They say that a tanager or an oriole never nests in a bird house. Instead, they search their favorite trees till they find a desirable spot well out on a leafy limb, and there construct their combined incubator and nursery. The Audobon Society makes the statement that out of 400 species of birds in New York state, not more than fifteen use bird houses. Among these are the wren, chickadee, bluebird, flicker, sparrow hawk, fly-catcher and screech owl.

It is the simplicity of bird-house building that should appeal to more people; just a lean-to will invariably do the trick.—*California Home Owner.*

APPEAL FOR THE CLASSIC

[Concluded from Page 66]

of a great people. If we can give to our office buildings something of the beauty of Gothic cathedrals or model our banks and railroad stations after Greek temples, we shall, in time, provide a magnificent setting for the requirements of modern civilization."

Secretary Mellon concluded his address by cautioning us to remember that just as these things are architectural expressions of the nation on its commercial side, so should the city of Washington, as President Coolidge has said, express the soul of America. "We do well, therefore, to give to it that beauty and dignity to which it is entitled. In doing so, we are not only carrying out those plans which Washington made so long ago for the city which he founded, but, at the same time, we are justifying that faith which he had from the beginning in the future greatness of America."

WHAT A LITTLE ARCHITECTURE WILL DO

The pictures below tell their own story. The house was for sale before the American Farm Bureau Federation and the National Lumber Manufacturers Association undertook its restoration. Deserted by its owners because of its dilapidated condition, the dwelling once again is occupied by them and the "for sale" sign has been taken down.

DILAPIDATED FARM HOUSE BEFORE ARCHITECTURAL TREATMENT

THE SAME HOUSE AFTER ARCHITECTURAL TREATMENT

The ARCHITECT'S VIEWPOINT

- *On Choosing an Architect.*
- *Competition for a Federal Building.*
- *Is a Small House Architecture?*

CONTRIBUTING EDITORS
WILLIAM C. HAYS . . *San Francisco*
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CHARLES H. ALDEN . . *Seattle, Wash.*

AND then there was the divorcee who said to her girl friend: "When I marry again, I don't want a 'has been' or a 'will-be'! What I want is an 'is-er'!" the bearing of which wisdom upon the subject of choosing an architect may not be immediately apparent.

Now, the career of an architect might be "graphed" by a curve, much broken, but tending gradually upward for most of its length—and having a more or less abrupt "let down" toward the end: the "will be," the "is-er" and (such is, unhappily, the human course) the "has been."

For service, find and evaluate the "is-er"! The incipient or budding "is-er" has to offer enthusiasm, coupled with zeal for and hope in Opportunity. The mature or full-blown "is-er," while he may be a little less exuberant, has to offer experience—and the zest for doing what he fondly hopes shall be his masterpiece,—ere his Swan Song. Yes! Since either of these has something to contribute, we must seek an "is-er"! "Then," one asks, "how is he to be found?" What qualities make for technical skill, and how may those qualities be appraised?

One does not know how to look for a servant, without first knowing the service to be performed. The engagement of an architect pre-supposes judgment on the client's part, since it has to deal with expert skill and, contrary to a common conception, is not comparable with the hiring of manual labor or with the purchase of steel, cement or lumber. Concede to the private owner a legal right and, perhaps, to some limited extent also, a civic right, to engage whomsoever he pleases as an architect. If his judgment is bad, it is his "own ox being gored," if we ignore the community's rights and interest.

The holder of a public or corporate trust, on the other hand, has neither legal nor moral right to consider "giving someone a job" or to choose an architect on any basis other than technical qualification for a particular service. While personal acquaintance is, of course, valuable in forming one's judgments, friendships must not be determining factors. Unfortunately, such representatives sometimes seem either not to see the solemnity of such a trust, or not to care.

The work of architecture is: first, a problem solved; then, an interpretation materialized. Included, then, as technical qualifications are: first, the ability to analyze — joined to the desire and patience to find the perfect working scheme under a given program; second, skill—joined to artistry in interpreting this solution, when found, in terms of architecture; third, administrative ability to organize his *agence* for the complex functions appertaining to large works; fourth, the "team" habit in relation to personnel.

When an architect is selected by direct appointment, if intelligent analysis is made of the preparation for service and a choice made on the record of a candidate's performance, a happy outcome is apt to result. But, under this category of direct appointment comes also the "grab bag" method wherein the choice falls to "one of the boys" (a politician, a Rotarian, a bridge [or golf] player, a member of the congregation). This latter phase of direct appointment is the lead to most of the calamities. The weakness of

is method of appointment inheres in the owner's difficulty in finding a line-up of true lues, for he is subjected to much "wire-pulling."

As to "competitions," few architects of experience regard them with favor, but mere- as "a choice of evils." Advanced in favor of competition is the theoretical argument that e system offers to the owner (cheap to him,if not to the competitors) numerous solu- ons from which the best (?) is chosen. Does not this theory defeat itself? All of us ith experience know that competition seldom gives a free choice of *first-class* solu- ons. Long before presentation of a scheme to any jury, every competitor has held a mpetition with himself; among several "partis" he has made the choice upon which stake his chances; and he has usually thrown his most brilliant conception into the aste-basket to choose a relatively common-place, if safe, one. He hesitates to take a iance with the average jury. Not that the jury is not well-intentioned, but few juries ther give adequate study to the particular problem to qualify them for sound judg- ent, or are sufficiently in control of their emotions or personal leanings, nor would they ways have the courage of their convictions in choosing a venturesome scheme. If the mpetitor knows in advance the make-up of the jury, he is tempted to play for a preju- ce; often, he "plays safe" and depends upon an appeal of detail or on skill in render- g. Even consciously false presentations have not been unknown.

Quite secondary qualities have frequently "won" (?) competitions for unsolved d undistinguished designs! * * *

THE Mayor of San Francisco is petitioned by an imposing list of architects, with the hope that a competition may be inaugurated for the plans of the Federal Build- g to be constructed in the Civic Center. Soon, also, architects will be engaged for the Health Buildings" recently authorized by a bond election. While the petition speaks ly of the Federal Building, it may be assumed that the competitive system is regarded best in both instances.

If all signers of the petition were candid, there are some among them who do not vor competitions and, ordinarily, would not participate. Believing in direct appoint- ents they have, by asking for a competition, indicated mistrust of the direct appoint- ent method in certain cases—not as to the *motives* of those making appointments, but to *mechanisms*—not in general but in a particular instance, *this* instance and by infer- ice to others like it. All signers, of course, sincerely believe in their own capability to andle such important works, and some have a not unnatural and justifiable hope for bite of the apple." Do all realize and deplore the waste certain to come, in purse and ulse-strain? If, as we tell ourselves, a competition has a stimulating effect while it is eing prepared in an office, there is a corresponding "let down" (for all but the winner) ot unlike what we are told is the depression following internal application of alcohol.

"Lest we forget"—there is a queer old proverb that "a fool and his money are soon arted." Is architecture alone a "boob" profession? What other group would have coun- nanced ("plunged into" is a truer term) that little library competition not many years go, when sixty or more presumably sane competitors spent not less than $30,000 gam- ling for a stake of a $5000 gross fee! If there must be competitions let the architects be rotected against their own cupidity by limiting both the number of competitors and the nount of work permitted!

Do some who ask for "competition" perhaps feel that long distance selections are ade on the basis of *names*, rather than of *qualities*, and that government officials in Vashington are too remote to have well-advised information as to the relative qualifica- ons of California practitioners? Let our memories take us back to the Panama Pacific Exposition. There were some "long distance" appointments made then. Were one's rills evoked by the works of the firms having international fame and, unquestionably, he longest and most honorable record of accomplishments? Yes. They were not! In- tead, the cameras clicked at Maybeck's Fine Arts Building—where the people reveled

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The ARCHITECT AND ENGINEER

SINCE 1905

An illustrated monthly magazine of Architecture, Engineering and Allied Arts and Crafts.

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WITH the merging of the *Pacific Coast Architect* and the *California Southland*, THE ARCHITECT AND ENGINEER assumes leadership of the architectural field on the Pacific Coast — a position which it has indisputably earned after nearly twenty-five years' continuous service to the profession. The policy of THE ARCHITECT AND ENGINEER has been always to serve the architect and there will be no deviation in this policy in the future.

The field of architecture and its allied interests offers unlimited opportunities for the dissemination of a vast amount of valuable information. To this magazine the architectural and engineering professions will continue to look, as they have looked in the past, for the best things that are being done on the Pacific Coast, both architecturally and from an engineering viewpoint. It will be the aim of the publishers to improve, if possible, each succeeding issue, adding such new features from time to time, as the march of progress may seem to demand. For the practicing architect on the Pacific Coast, where climatic conditions require styles of architecture and methods of construction somewhat different from those in vogue in the East, THE ARCHITECT AND ENGINEER will continue to be his "Bible."

The merged publication will be known as *Arts and Architecture* and, according to an announcement in the January *California Southland*, the new magazine will be published in Los Angeles with many of the long established features of *California Southland* continued. These departments include Bookland, Music, Painting, Sculpture and the development of Southern California's far-flung hills and dales. In our contemporary's latest venture THE ARCHITECT AND ENGINEER extends its hearty well wishes. The move would seem a wise one. There is a field for such a publication, just as there is a field for THE ARCHITECT AND ENGINEER. The two should no longer conflict in carrying on their respective missions.

NOTES AND COMMENTS

Elmer Grey, formerly of the firm of Myron Hunt and Elmer Grey, and later practicing architecture for himself in Los Angeles, and who, on account of illness, was obliged to give up his business for the past two years, has resumed practice in the southern city with offices at 832 West Fifth street, Los Angeles.

Mr. Grey has consented to become a contributor to THE ARCHITECT AND ENGINEER and is now at work on a review of the work of Reginald D. Johnson, which will appear in an early issue of this magazine. The number will be one of the most elaborate issues yet published and will show Mr. Johnson's work from the early days of his career up to the present time. Much of his distinguished work not heretofore shown in any publication will be included in this notable number.

* * *

RETICENCE of architects to co-operate with the press and to take advantage of advertising media reaching all branches of the building industry as well as the general public, is in a large measure responsible for the failure of the world as a whole to properly appreciate the value of architectural services. In commenting on current conditions in the building industry, Forbes Magazine, among other things, has this to say: "When the architect is more widely consulted on building problems, it will tend to remedy one of the major difficulties. As a rule, the man of business does

not realize the essential function of the architect, to act as his representative. He will engage an engineer of high standing, a competent physician when he is ill, a skilled lawyer when he has legal entanglements, but too frequently the economy of engaging an architect, who will supervise the entire operation, is not understood. To sell the architect to the public and to explain his functions, to supervise and represent the owner, has still to take place."

* * *

IN a recent statement, V. F. Tinsley, secretary and treasurer of the Iowa Chapter, A. I. A., said:

"Iowa for years has been the dumping ground for everyone who called himself an architect whom other states refused to license."

One would infer from Mr. Tinsley's remark that Iowa is without a state board of registration. It is known, however, that Iowa has a state board, but there is a supposition that it is not functioning properly, otherwise there would not be so many incompetent architects abroad. The law does not permit a designer to call himself an architect unless he is certified.

THE ARCHITECT'S VIEWPOINT

[Concluded from Page 107]

f they did not quite understand; and they ought Mullgardt's "Court of Abundance" nd Bacon's "Court of Seasons" on their vay passing through the "Court of the Uni-erse"—hardly knowing it was there!

* * *

THE editor having invited another's comment upon small house design the vriter chanced a few moments thereafter o meet Bernard Maybeck, who on being sked "Is a small house architecture?" imediately countered "What is architecure?"—which, by the way, coincided verbatim with the present writer's query. Is rchitecture large; is it small? Is it monumental; is it domestic? What is "small"? Or is architecture the sane solution of live roblems beautifully interpreted in terms f their own time? Preferring this last oint of view, let the question be stated differently. Is the small house generally considered as a *real problem* by architects? Unless it be so accepted, is not the architect stultifying himself in accepting commissions to build houses?

Is he functioning if he starts out with the assumption of a "prototype" (one must have a "prototype"?)—Europe? The American Seaboard Colonies? The Spanish Missions? Prototypes from the higher social scales are preferred. Sometimes they are buildings into which sunlight was welcomed even in the unhygienic centuries of the past. If of any considerable size, such swarms of servants were needed in those days, as are now neither obtainable nor necessary; who, if installed, would only be stumbling over the mechanical equipment. Or for prototype does the architect seek the primitive? Say a medieval cottage, picturesque albeit more often than not squalid; whose occupants have social, hygienic and material requirements far below the par of an American day laborer; whose *menage* not uncommonly includes the donkey, the goat and the geese as about equally important with the almost annually increased brood of children. The present writer—a firm believer in sound precedent—wonders as to another point of view. May we attach significance to this idea? Does the American proletariat demand as important, if not prime, factors of its housing problem—space for the automobile, the radio, the washing, ironing and refrigerating machines, a piano (sometimes) with all of which goes the minimum of house (since there seem to be fewer housewives)—and an impressive place to see the installment (or budget plan) man when he calls? In all this, the speculative builder—offering what he terms, with a touch of humor, "homes for sale"—outkeens the architect ten to one, for he recognizes a situation when he sees it. He makes his offering to a public which has much discernment as to working and living possibilities but, too often, neither discernment nor concern as to matters of taste. Let the architect adopt the speculators' point of view, and let him but interpret the problem worthily, in terms at once of utility and beauty, and the question "Is a small house architecture?" answers itself.

WILLIAM C. HAYS, A. I. A.

WITH *the* ARCHITECTS

BERKELEY ARCHITECT BUSY

New work in the office of Edwin Lewis Snyder, architect of Berkeley, forecasts an exceptionally busy year, and includes the following:

Sketches have been approved and working drawings begun on a $40,000 Spanish hacienda for Mr. and Mrs. George Friend in Arlington Estates, adjoining the Berkeley Country Club. The house will have twelve rooms, four baths, 50x50 patio with Spanish tile fountain and well head, tile paved loggias, oil-burning hot-water heating system, four-car garage, whitewashed brick veneer exterior and hand-made terra cotta tile roof.

Sketches have been approved and working drawings begun on a semi-formal Italian type residence for Mr. and Mrs. J. B. Camerlo on Ross Circle, Oakland, to cost $15,000.

Working drawings have been completed for a Mediterranean type house for W. H. Hooper in Claremont Pines, to cost $20,000. The plans call for eleven rooms, three baths, two lavatories, patio with entrance loggia and a second story overhanging balcony of wood which is the main architectural feature on three sides of the house.

Sketches have been made for a Spanish residence for Mr. and Mrs. E. D. Bramlage to be built in Claremont Pines and to cost approximately $15,000.

Working drawings have been completed and contracts awarded on a $10,000 nine-room English residence for Mrs. M. A. Mel, to be built in Shattuck avenue, Berkeley.

Sketches are in progress for two Spanish residences for A. T. Beckett in Arlington avenue, Berkeley, to cost $15,000 each.

LOS ANGELES THEATER

Preliminary plans have been completed by B. Marcus Pritica, Pantages Theater Building, Los Angeles, for a twelve-story Class A theater and office building to be built on the northwest corner of Hollywood boulevard and Argile street, Los Angeles. The promoters are the Bartlett Syndicate Building Corporation. The estimated cost of the investment is $2,500,000. The theater will have a seating capacity of 3500 persons.

SAN FRANCISCO SKYSCRAPER

At least one large skyscraper office building is assured for San Francisco this year. George W. Kelham has been commissioned as architect of a twenty-story Class A office building to be erected on the northwest corner of Bush and Battery streets for the Shell Oil Company of California. More than $3,000,000 will be expended and the building is expected to be a notable addition to San Francisco's growing skyline.

17-STORY APARTMENT BUILDING

Plans have been completed by Albert H. Larsen, 447 Sutter street, San Francisco, for a seventeen story steel frame and concrete apartment building to be erected on the southeast corner of Clay and Jones streets, San Francisco, for the Clay-Jones Building Corporation. A construction contract has been awarded to G. P. W. Jensen at an approximate cost of $500,000.

TWENTY STORY APARTMENTS

A twenty story Class A apartment building to cost $1,500,000 is to be constructed on the corner of Sacramento and Gough streets, San Francisco, from plans by Joseph L. Stewart, Claus Spreckels Building, San Francisco. The mechanical engineer is Charles T. Phillips, 550 Montgomery street. Owners of the property are the Inter-City Properties, Inc.

HEARST MAY BUILD

There is a possibility that William Randolph Hearst will improve his holdings this year in the block bounded by Stevenson, Jessie, Third and Annie streets, San Francisco. Preliminary drawings have been made by Julia Morgan for a fifteen-story newspaper plant. *The Examiner* is reported to be badly cramped for room in its present quarters.

LOS ANGELES OFFICE BUILDING

Allison & Allison, Hibernian Building, Los Angeles, are completing working drawings for a thirteen-story Class A office building to cost $2,000,000, for the Southern California Edison Company. There will also be a one-hundred-car garage. The building will be located at Fifth street and Grand avenue, Los Angeles.

400-ROOM HOTEL

Plans for a 400-room hotel, to be called Aloha Inn, ind erected at Honolulu, are announced by Phil Poirer, for years manager of the Hotel Moana in Honolulu. Construction on the new Hawaiian hotel s scheduled to begin immediately. Plans have been repared by Gilbert Stanley Underwood of Los Angeles.

NEW TUCSON HOTEL

A $700,000 hotel is projected for Tucson, Arizona, y Albert and Harold Steinfeld of that city, and Lee H. Orndorff of El Paso, Texas. The Orndorff Construction Company of Los Angeles will build the leven-story, Class A reinforced concrete structure rom plans by Roy Place, Tucson architect. The hotel uilding will have 200 guest rooms.

KINGS COUNTY HOTEL

The old Kings Hotel at Hanford, Kings County, lamaged by fire last summer, is to be replaced by a nodern three-story reinforced concrete hostelry to cost 200,000. The owner is Joseph A. Pasqualetti of San Francisco, who recently purchased the property. Plans re being prepared by his engineer, C. W. Zollner.

COLLEGE INFIRMARY BUILDING

Plans have been completed by Arthur Brown, Jr., 251 Kearny street, San Francisco, for a three and our-story Class A infirmary building for the University of California. The structure will be located on he east side of College avenue, near the University Campus, Berkeley. It will cost $350,000.

ENGLISH TUDOR RESIDENCE

Plans have been prepared by Messrs. Newsom & Newsom, Federal Realty Building, Oakland, for an English Tudor residence to be built in Presidio Terrace, San Francisco, for Clarence C. De Veuve, 114 Sansome street, San Francisco. More than $50,000 will be expended on the improvements.

HOSPITAL FOR NORTH NAPA

Plans have been completed by N. W. Sexton, architect in the de Young Building, San Francisco, for a $50,000 private hospital to be built at North Napa for the Victory Hospital Association. Bids have been taken and construction is expected to start within thirty days.

THE LANDSCAPE ARCHITECTS

At the annual meeting of the Pacific Coast Chapter of the American Society of Landscape Architects, held at Los Angeles in December, the following members were elected to office for the year 1929:

President, Emanuel T. Mische.

Vice-President, Major Geo. Gibbs.

Secretary, J. W. Gregg.

Treasurer, Charles H. Diggs.

Members of Executive Committee, George D. Hall and Ralph D. Cornell.

One of the most important subjects under discussion and one holding great interest for the landscape architects of the Pacific Coast, was that which concerned the future relation and co-operation between the professional landscape architect and the nurserymen. As a result of the discussion of this subject, it is clearly indicated that it is the growing opinion among a number of nurserymen that they should not continue to engage in the practice of landscape architecture in connection with nursery work. Many nurserymen are now quite willing to recognize the province of the well-trained landscape architect and will in the near future turn their attention entirely to the growing of ornamental stock for his use. It is interesting to note that one of the largest nurseries in Southern California, namely the Beverly Hills Nursery, has already discontinued its landscape department, and it is rumored that others contemplate following its example.

* * *

F. L. Olmsted, nationally known landscape architect, has just submitted his report in connection with the recent survey dealing with the State Park problem in California. He was assisted in this survey by a number of landscape architects, among whom were Emerson Knight of San Francisco; H. W. Shepherd, Division of Landscape Design, University of California, and D. H. Hull.

* * *

Harold Gilky, landscape architect, Oakland, is preparing plans for the development of an estate in Vacaville for Dr. and Mrs. Leonard W. Buch of San Francisco.

* * *

Professor J. W. Gregg, landscape architect, University of California, has just completed plans for the landscape development of the Pittsburg Union High School, Pittsburg, California, and is continuing studies involving the landscape development of the campus at the University of California at Berkeley and also at Los Angeles.

Louis Beezer — 1869-1929

LOUIS BEEZER died in San Francisco on the 2nd day of January of this year. He had been in poor health since last spring, when he fell from a ladder at the Corpus Christi Monastery at Menlo Park and broke his shoulder.

The passing of Louis Beezer, to those who knew him, is quite a loss, and a great loss to the architectural profession. He was born in Belfont, Pennsylvania, on the 6th of July, 1869. He was educated there, and after leaving school went into the construction business. At twenty-one, he was a building foreman, but this did not satisfy his ambition. He had saved a little money; he went to Pittsburgh and studied architecture. Returning to Altona he opened an office and a little later, in 1892, was joined by his twin brother, M. J. Beezer.

Their first commission of any consequence was a Catholic church in Johnstown, Penn., designed in the Italian Renaissance. Their success in this building so much encouraged them that shortly after its completion they moved to Pittsburgh. Here they did an immense amount of work.

In 1907 the firm moved its offices to Seattle, Washington, where they practiced architecture for twenty-one years, during which they designed many important Catholic buildings, including schools, hospitals and churches. They also designed many bank buildings, the most successful of which were the First Nationals at Medford and Walla Walla. The latter building is probably the best of all those that Louis Beezer himself designed.

In the spring of 1923 Beezer Brothers were appointed architects of St. Dominic's church, and Louis Beezer took charge of their San Francisco office. He spared no expense to produce a well-designed building, one which Archbishop Hanna pronounced at the time of its dedication "the most beautiful Catholic church in Western America."

In addition to this important contribution to architecture, Louis Beezer was appointed consulting architect to the Blessed Sacrament church at Hollywood, and later he was instructed to take over the building, which is partially completed, and finish the plans, but he died before this work could be completed.

Louis Beezer was a profound student of architecture. He was a tremendous worker. When I first went to work for him in 1908, he was working from twelve to fourteen hours a day, and wanted us to do the same.

He was a very modest man, and took a great deal of pleasure in praising the work of his designer to his clients.

His work, his hobby, his life, was architecture; he spent hours studying the work of other architects, and frequently he would write and congratulate an architect upon some particular building, although he might never have met him.

Louis Beezer was a very religious man, and his greatest pleasure during the last two years of his life was to meditate in St. Dominic's, to watch the effect of light and shade, as the golden lines of sunlight lit up the interior and brightened the carvings, revealing line after line of beautiful ornament. It is very sad to think that he will never see the masterpiece completed.

ARNOLD CONSTABLE.

GRANTED CERTIFICATES

The following applicants were granted architects' certificates at a meeting of the California State Board of Architecture, Southern District, December 27th: Kenneth S. Wing, 728 New York street, Long Beach; Adrian J. Wilson, 1137 Green street, Glendale; Alberto O. Treganza, United States National Bank Building, San Diego; Aubrey S. St. Clair, 432 Athens street, Altadena; Roy B. Parkes, 731 Sinaloa street, Pasadena; Kurt Meyer, 6362 Hollywood boulevard, Los Angeles; Paul Kingsbury, 2008 W. 7th street, Los Angeles; Herbert A. Slulwold, 5761 Country Club drive, Los Angeles, and Wilfred W. Beach, 1844 Argyle avenue, Loss Angeles.

PERSONALS

The firm of PRITICA & PETERS, which has done much theater work in the past few years, has dissolved. B. Marcus Pritica will resume practice at 515 Pantages Building, Seattle. Mr. Peters has not announced his immediate plans.

PALMER SABIN, formerly located at 416 Union Insurance Building, Los Angeles, has moved to 170 E. California street, Pasadena.

J. FRANK CAVANAUGH has moved from 307 Architects Building, Los Angeles, to Suite 911 in the same building.

MESSRS. J. V. D. LINDEN and G. VON HERR, architects, announce the opening of an office for practice of the profession at 306 Plaza Building, Oakland.

M. C. PARKER, architect, has moved from Santa Ana, California, to the First National Bank Building, Roswell, N. M.

SOCIETY and CLUB MEETINGS

S. F. ARCHITECTURAL CLUB

The monthly business meeting of ıe San Francisco Architectural Club ras held in the Club rooms, January nd, with President Lawrence Key- r presiding. After the reports for ıe year were read and accepted the ıstallation of the new officers, elect- l without opposition, took place with ıe following result:

President, Harry Langley; vice-president, Theodore uegg; director, Waldon B. B. Rue; secretary, F. A. ielsen; treasurer, David Kensit.

President Keyser, in his farewell speech, announced o the Club that in order to have the Club benefit by ıe training of past presidents, an advisory board ould be created which would consist of ex-presidents nly. The chairman of the board will be announced later when other details for its organization and approval of the club members is obtained.

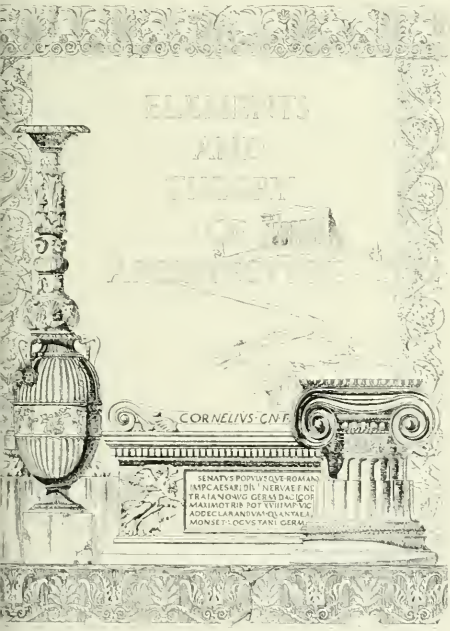
Mr. Keyser was presented with a watch fob as a token of appreciation for his services. The serious atmosphere at this point was broken by the entertainment chairman, who presented Keyser with a "Swiss cheese" movement watch to go with the fob.

The incoming president, Harry Langley, in his inaugural address, decided that the past administration left entirely too many wrinkles that need to be ironed out. Just how he intends to make a new stretch was not stated. The newly-elected vice-president is shy on speeches and did not come to his own election. We are sure that Ted had an excellent alibi to miss such an event.

The retiring officers were given a standing vote of thanks for their labor during the past year.

With the election past history, the Club turned to other indoor sports such as is furnished by the entertainment committee, which announced a trip to the Washington Iron Works plant at Milbrae, January 19.

The chef of the evening furnished the usual hot dogs and coffee, but seemed to have lost out when the thanking was done. Ed's term of kitchen police is over. No one notices the poor K. P.'s anyway, unless they have a kick coming. Ed Martini's term in the gastronomic department was marked by a decided change for the better in the way of menus. He had something different each time, and seemed to take a personal interest in serving it in an appetizing manner. A vote of thanks is due him.



BOOK PLATE FOR BEAUX ARTS PROBLEM, SAN FRANCISCO ARCHITECTURAL CLUB
David Kensit, Designer

WASHINGTON CHAPTER, A. I. A.

The regular December meeting of the Washington State Chapter was held at the College Club, Seattle, with a good attendance of members from Seattle and Tacoma. The Chapter also entertained as its guest, William G. Purcell of Portland, director of the Architects' Small House Service Bureau, representing the North Pacific Division of the Bureau.

After an exchange of friendly greetings in the living room of the Club, the usual dinner was enjoyed, and at its conclusion the meeting was called to order by President Ford. The minutes of the November meeting were read and approved.

Brief reports from various committees was the next order of business. Mr. Gove, chairman of the Chapter Committee on Legislation, in reporting relative to the

proposal to improve the Architects' License Law of the State, said that his committee would like to ask three questions of the Chapter: Whether they believed the law should be revised; should the licensed architects of the State be asked to co-operate, and was the Chapter prepared to do the necessary financing? After some discussion, it was voted that the committee draft amendments having the strengthening of the law in view, and submit these at a special Chapter meeting.

Mr. Vogel, reporting for the Committee on Public Information, spoke of a letter he had written to Mr. Kemper, executive secretary of the Institute, relative to the Chapter's work on publicity, with the committee's ideas on the subject. In response to this, a very complimentary reply was received from Mr. Kemper.

A letter was read from William O. Ludlow, chairman of the Institute Committee on Industrial Relations, referring to the giving of medals for craftsmanship. Mr. Willatsen was asked to present his views as a member of this Institute Committee. The discussion that followed led to a vote that the giving of certificates for craftsmanship by the Chapter, as had been done two years ago, be again given consideration and that the Chapter Committee make a report so that further awards might be made at the next annual meeting.

The nominating committee then presented its report through its chairman, Mr. Thomas, nominating practically the same list of officers that served in 1928, with the following exceptions:

For Executive Committee—Three years, Arthur P. Herrman; one year, A. H. Albertson.

For Delegates to the Institute Convention—A. M. Allen, R. E. Borhek and Harlan Thomas.

Mr. Purcell was then introduced as a director of the Architects' Small House Service Bureau who had stopped off to visit the Chapter on his return from a meeting of the Board recently held in Chicago. Mr. Purcell spoke generally of the aims of the Bureau to improve the quality of small house architecture and of its specific value in advertising architecture and promoting the use of the architect's services.

STATE BOARD OF REGISTRATION

A joint meeting of the Northern and Southern Divisions of the California State Board of Architects was held in San Francisco just before the holidays in December. The possible raising of the present standard of qualifications for licensed architects was discussed. Under present State regulations architects of experience are subjected only to oral interrogation, while newcomers in the profession must pass a written examination. It is now intended to equalize the test and to increase requirements. A committee of architects i now at work framing proposed legislation.

The board listened to a report by William J. Gar ren, secretary of the State Association of Californi Architects, outlining a plan by which persons of mod erate or small means who are unable to employ ar architect for the modest homes they purpose to build may obtain from the association, for a nominal fee plans and advice in sufficient detail to save them fron costly and inartistic mistakes.

The board received from Governor Young a copy o the bill to be introduced in the coming session of th State Legislature creating a Department of Educa tional Standards to exercise a more direct and effectiv supervision and control of licensed occupations of al kinds, than is permitted under existing laws.

Present at the two-day meeting of the board were William H. Wheeler of San Diego, president; A. M. Edelman of Los Angeles, secretary for the southern district; Albert J. Evers of San Francisco, secretary for the northern district; Frederick H. Meyer of San Francisco, president of the northern district; John J. Donovan of Oakland; James Plachek of Berkeley. John C. Austin, John Parkinson and William Dodd of Los Angeles.

SOUTHERN CALIFORNIA CHAPTER

Officers for 1929 were elected at the regular meeting of Southern California Chapter, American Institute of Architects, held at the University Club in Los Angeles, December 11. Pierpont Davis was re-elected president, Edgar H. Cline was re-elected vice-president, and A. S. Nibecker, Jr., was re-elected secretary. Ralph Flewelling was elected treasurer to succeed Fitch H. Haskell, and Eugene Weston, Jr., was elected director for a term of three years.

The following were elected delegates to the annual meeting of the American Institute of Architects at Washington, D. C., next May: David J. Witmer, Sumner P. Hunt, William Richards, Ralph C. Flewelling, A. M. Edelman, Fitch H. Haskell and S. M. Spaulding. Alternates chosen are: G. B. Kaufmann, H. Roy Kelley, W. T. Johnson, Alfred W. Rea, Eugene Weston, C. M. Winslow and H. P. Sabin.

OREGON CHAPTER, A. I. A.

Regular meetings of Oregon Chapter of the American Institute of Architects will be held this year in the quarters of the Chamber of Commerce. The Chapter, which meets the third Tuesday of each month, has been holding its sessions in the Grey Cottage tea room. The last meeting was held December 18th, with a large attendance.

L. A. ARCHITECTURAL CLUB

The Los Angeles Architectural Club's December meeting, held on the 18th at the Artland Club, 1719 Figueroa street, attracted a large number of members and guests. President George P. Hales expressed his pleasure at the attendance, as this was the first meeting, in his experience, to which ladies were invited.

Joseph Swickard, motion picture actor, was the speaker of the evening. His talk included many comic anecdotes about his experiences in pictures. M. C. Barnard, poet and journalist, present as a guest, gave two clever readings, and Frank B. Nightingale amazed the gathering with some of his ingenious card tricks.

Interspersed with these numbers were musical selections by the quartet and solos by Norman Kelch and Ted Johns. Edward Langley, local artist, acted as Master of Ceremonies and was particularly amusing with his clever introductions.

Award of prizes to winners in the Polytechnic High School Small House Competition were made by Roger Nobel Burnham, local sculptor. The winners were all present as guests of the Club.

Besides the display of these prize winning drawings, the Greeting Cards, submitted in competition by Club members, were also exhibited. But these entries were too fine to be given a hasty judgment, so a jury was appointed to decide the winners at a more convenient time. The judges were H. Scott Gerity, Robert Lockwood and H. Roy Kelley. After much consideration, first prize was awarded to Donald Worster and second to Graham Latta.

STOCKTON ARCHITECTS MEET

At a meeting of the Stockton branch of the California Association of Architects, Howard Bissell and Glenn Allen were appointed a publicity committee to prepare articles stressing the value of employing and consulting with licensed architects. A committee on awarding public work, consisting of Ralph Morrell, Joseph Losekann and Victor Galbraith, was also named. Those present at the meeting included Frank Mayo, Peter L. Sala, Howard Bissell, Victor Galbraith, Glenn Allen, Ralph Morrell and Jos. Losekann. Plans were discussed for a joint meeting with the Stockton Chapter, American Association of Engineers.

David W. Terwilliger has moved from the Western Pacific Building to 421-B North Canyon Drive, Beverly Hills.

SOCIETY OF ARCHITECTS

THE regular business meeting of the Society of Architects of Alameda County was held at the Athens Athletic Club December 17th, those present being: Messrs. Gilkey, Reimers, Roeth, Olson, Miller, Yelland, Warnecke, Snyder, Foulkes, Froberg, Whitton and Prof. Shephard. Vice-President Bangs presided in the absence of President Corlett, who was ill. Minutes of the previous meeting were approved as read.

Mr. Crawford of the Industrial Association gave a talk on the Impartial Wage Board.

J. A. Hill spoke on Certified Heating for Steam Heat and Hot Water. According to Mr. Hill the Association of Heating Contractors check contractors' plans and installation. Hence the first cost is the last cost to the owner.

A letter from Palos Verdes, regarding the use of California style of architecture instead of Mexican, Mediterranean, Spanish, etc., was read by the secretary and ordered filed.

Mr. Roeth gave a report of the meeting of the State Architects' Association of December 14. He said that the question of education to eliminate "bootleg" competition was one of the subjects discussed.

HONOLULU ARCHITECTURAL CLUB

The Honolulu Architectural Club, which was recently organized, is forging ahead rapidly and making vast strides in its endeavor to create an architectural club in Honolulu, second to none, and one which will make those on the mainland of the United States look to their laurels.

Through the untiring efforts of several of the more active members of the club and the co-operation of business men of the city, including Alexander Hume Ford, the club now has its own quarters in Monoa Valley, occupying one of the most beautiful spots in the city of Honolulu, and with a commanding view of all Waikiki and Diamond Head in the distance. With its splendid environment, it is certain to be an inspiration to the club members in helping to create a feeling of beauty in their work at the club.

Each member has individually volunteered to spend several hours a week in remodeling and decorating the clubrooms, so that within a short time the club hopes to have one of the finest quarters of its kind in the United States.

When the rooms are finished the club will then be in a position to offer the advantages of various courses of instruction and atelier work, as well as competition for the scholarships offered by the Beaux Arts Institute of Design.

The Cross Roads of the Pacific, as the islands are familiarly known, are not only the melting pot for the various races bordering the Pacific, but of architecture as well. Therefore, instead of a meaningless jumble of architecture which would be the inevitable result of such blending without a definite purpose, one of the objects of the club is to make an exhaustive study of a type of architecture that may be developed to suit the climate of Honolulu and the Hawaiian Islands in general. Associated with the club in this undertaking will be several of the world's finest artists and sculptors who are now making their homes in Honolulu.

The sketching class which has been spending every Sunday morning in the field for several weeks, has already produced several noteworthy sketches, attesting to the ability of its instructor, C. W. Lemmon, formerly of Los Angeles.

The officers of the club are: President, Robert Cassidy of Robert Miller's office; vice-president, R. W. York of Rothwell, Kangeter & Lester's office; secretary, Charles Wagner, Jr., of Emory & Webb's office; treasurer, Earl J. Stephenson of Lou Davis' office; member of board of directors, Howard Reed of the Blue Print Shop. E. J. S.

ARCHITECTS' LEAGUE, HOLLYWOOD

Following its regular weekly luncheon, December 12th, the Architects' League of Hollywood visited the new buildings of the University of California at Los Angeles, Westwood, and inspected the terra cotta and tile work in these structures under the guidance of S. D. Willard, manager of the tile department of Gladding, McBean & Co.

ENGINEERS' ASSOCIATION

Los Angeles Chapter, American Association of Engineers, resumed activity last fall with a dinner meeting held at the Engineers' Club on the evening of Thursday, October 25. This was a joint meeting with the local section of the American Society of Mechanical Engineers.

D. C. Moore, secretary of the Engineers' Club, acted as chairman.

H. A. Barre, executive engineer for the Southern California Edison Company, spoke on "Executive Management"; Thurston H. Ross, industrial engineer and management specialist, discussed "Industrial Management"; and Zara Witkin, chief engineer for the Herbert M. Baruch Corporation, gave an excellent talk on "Construction Management."

The December meeting was held at the Engineers' Club on Thursday evening, December 13. One of the speakers was Charles Kyson of the Architects' League of Hollywood. The program was followed by dancing.

During January, an evening course in public speaking will be given again this year by J. Hunter Clark, executive assistant to the chief engineer of the Bureau of Power and Light, and a former secretary of Los Angeles Chapter.

WINNERS SMALL HOUSE COMPETITION

Awards have been made in the Small House competition, conducted for students in the Department of Architecture at Polytechnic High School, Los Angeles.

William Horneck, of 4424 So. Central avenue, won the first prize with a charming, three-room house. The prize is one year's membership in the Los Angeles Architectural Club. Andrew Conze of 414 E. 127th street, Jack Lippman of 231 So. Arden boulevard and Harlan Sater of 825 S. Townsend street, won second, third and fourth prizes, respectively.

First Mention went to Andrew Conze, Second to Elsworth Phillips, Third to Jack Henry and Honorable Mention to Conrad Cornfeldt. Mention was also given to Claude Coates, Roy Djerf, Clarence Wapner, Earl Hern, Sam Fleishman and Albert Machado.

A jury composed of George P. Hales and Kemper Nomland from the Los Angeles Architectural Club, Roy Parkes from the Pasadena Architectural Club, Charles Kyson from the Architects' League of Hollywood and C. A. Faithfull, head of the Department of Architecture at Polytechnic High School, judged the 160 entries. Their task was a difficult one for the standard of work was very high. Most of the exterior designs and ingenious floor plans were decidedly professional in their expression.

In addition to the entries that received either awards or mentions, seventeen more were chosen by the judges to augment the collection of the Small Home Plan Bureau, where the working drawings will be sold, the returns to go to the students.

Everyone connected with the competition feels gratified with the results which show an unusual appreciation of fine small house design among young students.

The drawings have been placed on exhibition on the ground floor of the Architects' Building, Fifth and Figueroa streets.

LIVING ROOM, HOUSE OF EDWIN L. SNYDER, ARCHITECT, BERKELEY
Brucellized Oak Plank Flooring by G. H. Brown Hardwood Company

COURSES IN ARCHITECTURE

Twelve night courses in architecture and the fine
s, offering advanced work for the architectural de-
ner and draftsman, sculptor, mural painter, and art
acher busy during the day, are being given under the
spices of University College in the studios of the
rchitectural Building on the campus of the Univer-
y of Southern California, 659 West 35th street, Los
ngeles. The course began December 10th.

ARCHITECTS SUE FOR COMMISSIONS

Two California architects have recently brought
it against their clients for commissions alleged to be
ue. They are Gordon N. Kaufmann of Los Angeles
ainst Adolph Menjou, moving picture star, and Jos.
Stewart against a San Jose market.

VALUABLE HANDBOOK

The American Rolling Mill Company, Middletown, Ohio, has published as a companion to "Galvanized Iron for Roofs and Roof Drainage," a new handbook entitled "Galvanized Iron for Cornices, Marquises and Skylights." Its value lies in the wealth of practical working information that it contains, including many full-size details and illustrations of practical value to an architect or engineer who wishes to specify Armco Ingot iron for cornice work, marquises and skylights.

ARCHITECTURAL RENDERING

ARCHITECTURAL and landscape perspectives, drawn and rendered in wash, water color, pen and ink, or pencil. Arthur O. Johnson, 1541 Josephine street, Berkeley. Telephone BErkley 9287.

OIL HEATING DEPARTMENT

J. C. JOHNSON, president of the American Oil Burners' Association, and head of the S. T. Johnson Company, Oakland, recently returned from an extended business trip in the East, and he says that part of the country is rapidly becoming "sold" to the oil heating industry. "Better burners are being manufactured today than ever before," said Mr. Johnson, "and efficiency of operation, plus intelligent advertising, are contributing to the increased demand for this type of heating equipment." Mr. Johnson says the industry is just in its infancy. "It is only in the last year or two that architects commenced to specify oil burners for residence heating plants," he said, "and so successful have been the installations that the old time methods of providing heat are rapidly disappearing."

Referring to the usefulness of an "Oil Heating Department" in this magazine, Mr. Johnson writes:

"In addition to the recording of new and interesting developments and improvements, your department could be used for the discussion of various phases of the subject. That would not only be interesting to all of your readers, but a great amount of benefit would be derived by ARCHITECT AND ENGINEER readers taking part in the discussion of oil heating as it applies to the architectural profession. For example, there is a discussion on at the present time between the oil burner manufacturers and dealers and the heating contractors, particularly under the certified heat plan, which is not only of interest to the architect and consulting engineer, but their experience and counsel would go a long way toward solving this question."

OIL HEATING HINTS FOR ARCHITECTS

Practically every architect who designs residential, commercial and institutional buildings is finding on the part of some of his clients definite interest in the use of oil heat. The facts favoring the use of correctly designed oil burners are so obvious that it is unnecessary to repeat them in detail. The elimination of the undesirable problems of coal and ashes and the flexibility and durability of the oil burning system of heating with its easy control, definitely appeal wherever the problem of heating exists.

Architects who have specified oil burning equipment and have carefully selected properly designed types of burners have never been disappointed. Such architects have become powerful exponents of the use of oil burning apparatus and do not hesitate to recommend it to their clients.

Architects specifying oil heating installations must appreciate that oil burners as well as other similar mechanical equipment for domestic uses must be intelligently selected and the installation correct in all details.

Modern oil burners are as mechanically perfect as modern engineering and science thus far can make them. Under proper care they will function correctly and require little attention beyond periodical oiling and occasional cleaning.

Oil burners constitute merely one important element in a heating system. They will not overcome the troubles of a faulty boiler or of incorrectly installed radiation except in so far as they may provide greater heat than the former fuel could supply. All heating installations should be designed with all of the parts in proper balance and relationship, including the boiler the chimney or stack, the distribution system and the radiation.

Where oil heating apparatus is installed in existing boilers, the architect must adapt the burner by selection and adjustment to meet existing conditions. Vast improvements have been made in domestic boiler and furnace design in recent years which have greatly increased their efficiency. The installation of an oil burner in a poorly designed boiler or furnace will naturally limit the efficiency with which the heat units in oil are employed. Where the architect has an opportunity to make a new installation, as in the case of a new home being constructed under his direction, he can select modern boilers or furnaces especially adapted to oil heating and thus secure considerably better results than can be obtained with the average old style equipment.

* * *

ONE YEAR'S RECORD

It is estimated that one hundred thousand oil heating installations were put into American homes during 1927.

OIL HEATING SERVICE BUREAU

To fill a need, the S. T. Johnson Co., manufacturers for more than 23 years of oil-burning equipment for every heating and power purpose, have established an Oil Heating Engineering Service Bureau.

"The purpose of this Engineering Service Bureau," states C. H. Beebe, sales promotion manager of the S. T. Johnson Co., "is to assist architects, heating engineers and contractors in the solution of their more difficult oil heating problems."

To take advantage of this engineering service, send complete information about your problem to the Engineering Service Bureau of the S. T. Johnson Co., 940-950 Arlington Avenue, Oakland.

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SAN FRANCISCO INDUSTRY ANNOUNCES BIG EXPANSION PROGRAM

FOLLOWING one of the most successful years since its establishment in 1912, the Michel & Pfeffer Iron Works of San Francisco began its 1929 expansion program with the announcement of its purchase of the Pacific Structural Iron Works, 370 Tenth street, San Francisco. By acquiring the business and plant of this pioneer concern, the Michel & Pfeffer Company has further entrenched itself as one of the leading manufacturing industries in the building field on the Pacific Coast.

During the past year this company was made representative of the United Metal Products Company, Canton, Ohio, this in addition to representing in northern and central California the American Chain Company, parent organization of the Page Steel & Wire Company, manufacturers of chain link fencing.

In sixteen years the company has grown from a two-man shop to a plant that today employs on an average of two hundred people with a payroll of approximately $400,000 annually. A new feature product to be manufactured by the company this year will be a casement window developed to meet the needs of speculative builders where economy is an important factor.

Notable contracts filled by the Michel & Pfeffer Iron Works in recent years include the Mark Hopkins and Sir Francis Drake hotels, San Francisco; Architects' Building, Los Angeles; Transformer station, Sacramento, for the Great Western Power Company; buildings for the Western Pacific and Southern Pacific Railroad companies; warehouses and canneries in San Francisco and northern California and numerous smaller buildings. A contract is now being filled in connection with the thirty-story Medico-Dental building under construction at 450 Sutter street, San Francisco. The contracts on these jobs covered various lines handled by the company, such as steel sash, ornamental iron and bronze work.

In connection with the policy of the company there is one feature in which the management takes considerable pride. That is its established custom of insuring all employees against sickness and death, providing a death benefit to each employee's family of not less than $1,000.00.

MORE ECONOMY—GREATER EFFICIENCY

How the lighting and ventilating requirements of almost any proposed building may be analyzed—in advance of construction—is explained in a treatise just issued by the Department of Engineering Research of the Detroit Steel Products Company.

Too many buildings are erected without a definite knowledge of how and where and what kind of windows should be used. As a result, some buildings are insufficiently or unevenly lighted, some are inadequately ventilated, and thousands of dollars are wasted, particularly in industrial buildings. Production is impeded and efficiency frequently is seriously impaired.

A general description of laboratory findings is embodied in the new treatise called "The Fenestra Way of Daylighting and Aeration." Some of the topics discussed are: "Adequate and Uniform Illumination;" "Controlling Daylight in Industrial Buildings;" "Window Area and Window Height;" "Sidewall and Monitor Windows;" "Vertical vs. Sloping Windows;" "How Often Should Your Windows Be Washed;" "Coordinating Wind and Temperature Difference;" "Monitor Windows Compared with Roof Ventilators."

Copies of the treatise may be had without charge by writing to the Detroit Steel Products Company, executive offices, 2250 East Grand Boulevard, Detroit, Michigan, or any of the local offices of the company.

HEATER COMPANIES MERGE

Consolidation of two well established heater manufacturing companies, the Hoyt Heater Company and the Pacific Coast interests of the John Wood Manufacturing Company, became effective January 1.

The Hoyt Heater Company, with nearly twenty years of heater manufacturing on the Pacific Coast, will continue to produce the gas and water heaters which have established its reputation. The new concern, in addition, will manufacture the products of the John Wood Company, utilizing special processes developed in the huge eastern factory.

The new company will be known as the Hoyt-Wood Manufacturing Company, a California corporation, operated under the direction of E. S. Hoyt, Jr., president; R. C. Hoyt, vice-president and George L. Howard, secretary and treasurer.

The board of directors comprises the above officers together with Frank Sutcliffe and J. F. Dunn. E. S. Hoyt was formerly president of the Hoyt Heater Company and Sutcliffe was president of the John Wood Manufacturing Company and the Metal Ware Corporation. J. F. Dunn, formerly general manager of the Pacific Coast division of the John Wood Manufacturing Company, will be in charge of distribution for the new concern.

There will be no radical change in the products of the merging companies. The Hoyt storage heaters now bear the seal of approval of the American Gas Association of Cleveland, Ohio. The Wood heaters will be submitted to the A. G. A. in the near future. The present Hoyt factory at Los Angeles will be used exclusively for the manufacture of range boilers, storage tanks and heatershells. A large addition to the plant is contemplated.

The ARCHITECT AND ENGINEER

FEBRUARY
1929

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No other waterproof cement has been as widely used for plaster work on the Pacific Coast as Monolith. It is constantly being specified by architects for exterior and interior plaster work. It has been used on hundreds of buildings during the last seven years.

We shall be pleased to supply specific information on Monolith Portland Waterproof Cement, upon request.

Manufactured from basic patents

MONOLITH PORTLAND CEMENT

The ARCHITECT AND ENGINEER

Since 1905

VOLUME 96 | FEBRUARY, 1929 | NUMBER 2

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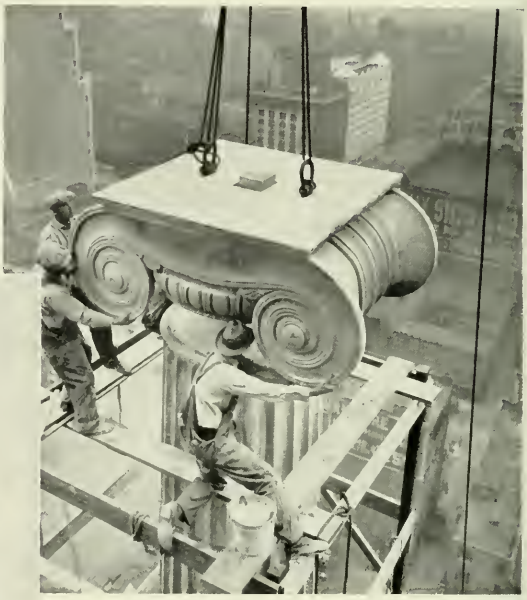

These pictures of the Civil Court House, St. Louis, Mo., in course of construction, indicate the kind of operations in which Indiana Limestone Company service has proved a factor of first importance in assuring the rapid and satisfactory completion of the job. Plaza Commission, Inc., Architects. Selden-Breck Construction Co., Builders.

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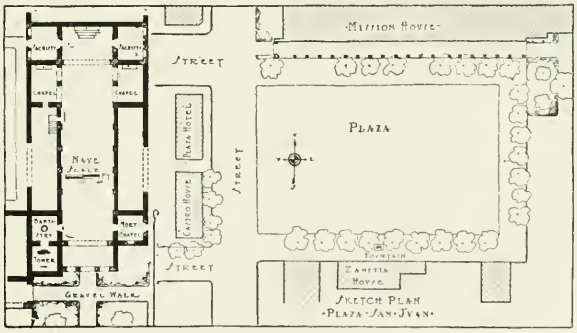
ETCHINGS OF THE FRANCISCAN MISSIONS OF CALIFORNIA

By Henry Chapman Ford

No. 12—Mission San Juan Bautista

This Mission is located in the quaint town of San Juan and is one of the most interesting of the old Spanish Missions. It faces a picturesque plaza and is surrounded by rows of locust trees with the old Castro house and the historic Zanetta house close by. The plaza was in days gone by the center of the town's civic life.

The plan of the church proper is cruciform. The old Mission house is now used for a museum, where may be seen many fine old vestments, candle sticks, processional torches, paintings and furniture. Some weak attempts have been made from time to time to restore portions of the old church, damaged by the earthquake of 1906. But much more could be done, as emphasized by one author, who thinks it "a pity that some of the great quantities of Portland cement made within a short distance of the old structure, cannot be diverted from commercial channels to repair this, one of the most interesting and pathetic of the ruined Missions."



MISSION SAN JUAN BAUTISTA, CALIFORNIA
FROM AN ETCHING BY HENRY CHAPMAN FORD

The
ARCHITECT
AND ENGINEER

OLUME XCVI FEBRUARY, 1929 NUMBER TWO

The EARLE C. ANTHONY BUILDING

OAKLAND, CALIFORNIA

By: Don Gillum

FOR its daring conception and near revolution to the general order of things architectural, the new Earle C. Anthony (Packard) Building n Oakland is a distinguished rival of its redecessor, the Earle C. Anthony Building n San Francisco. Recently completed and occupied, the Oakland uilding, designed by Berard R. Maybeck, with hom was associated John H. Powers and John H. hnden, the structure eems likely to become one f the recent outstanding chievements in architecure and engineering in his country.

Arising from the very dge of Lake Merritt, the ew Packard Building tands as a monument to rania's glory, for it is the ul of the Ctesiphon Palce of Kaikhosru, crumbng on the Tigris, that ooks proudly out at modrn Oakland. Ctesiphon's great single arch, which once soared over knightly charges, is the prototype of the triple arches from which one may look across the placid lake framed in emerald foliage, while up and down beneath them moves the full panoply of the twentieth century.

DETAIL, EARLE C. ANTHONY BUILDING
OAKLAND

In describing the building, the most striking feature of the exterior is its bold use of Polychrome color, long an ambition of architects, which was applied by an ingenious blower system, in which color and sand and water were mixed and sprayed under the direction of Maybeck, who stood away from the building and telephoned instructions to the workmen. The graduation from ivory to burnt umber was the result of intention rather than chance, and gave the surface the appearance of having been mellowed by hundreds of years of sun, storm and wind.

Photo by Don Gillum

EARLE C. ANTHONY BUILDING, OAKLAND (Lake Merritt in Foreground)

BERNARD R. MAYBECK, POWERS & AHNDEN, ASSOCIATED ARCHITECTS

EARLE C. ANTHONY BUILDING, OAKLAND, CALIFORNIA
BERNARD R. MAYBECK, POWERS & AHNDEN, ASSOCIATED ARCHITECTS

Photo by Moulin

Although primarily designed for commercial use, the new Packard Building typifies the endeavors of the owner, architect and contractor to work together in producing an artistic result. It was felt that the commercial application did not necessarily bar it from being a work of art and pleasing to the eye.

The interior structure is the inevitable result of the ramp communication between service floors—a method that the ancient Babylonians used in their buildings. Its sweep on the upper floors dictated the construction and position of the semi-circular apse on the lower floor.

There has been splendid rhythmic use of twenty short, black marble pillars to carry the arches which, in turn, support a laminated ceiling of Pecky cypress, so deftly painted in more than two dozen hues that the eye receives an impression of age rather than of color.

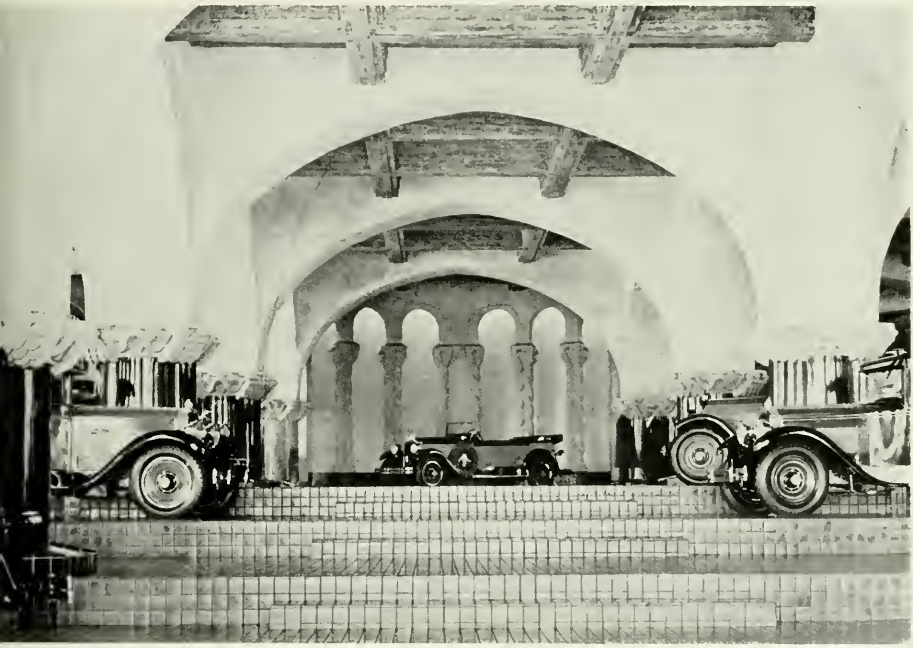
The construction program was commenced with exploration work on the foundation soil under the proposed building. Inasmuch as the structure is located on the shores of Lake Merritt, Cahill Brothers, the contracting engineers, first thought that perhaps a pile foundation would be necessary. However, borings revealed that at a distance of from fourteen to eighteen feet below the street level there was a hard clay arch. Test loads disclosed that the clay formation would carry a loading of 9000 lbs. per square foot without settlement. The excavation was then commenced, using a steam shovel to grade the site to the level of the first floor. Then the clamshell bucket excavator was used to dig the deep pits to carry the foundations down to the clay level. The excavation for the boiler room was made in the same manner. As the boiler room is below the level of the water in Lake Merritt, great care was exercised in water-

TOWER, EARLE C. ANTHONY BUILDING, OAKLAND, CALIFORNIA
Bernard R. Maybeck, Powers & Ahnden, Associated Architects

proofing this part of the building. A preparation of iron cement was used very successfully on the inside of the concrete walls and floors to insure the water-tightness at this point.

The building is structurally framed so that an additional story may be added at some future time and the ramp system gives a continuous passageway from the street

lar in form so as to adapt them to the architectural conditions of the proper sort for the huge crypt-like arches supporting the ceiling of the show-room. The columns in the upper stories are made rectangular in shape so as to give the least obstruction to car stalls along the major axis of the building. Compression breaking tests of the concrete were made during the construction period



DISPLAY ROOM, EARLE C. ANTHONY BUILDING, OAKLAND, CALIFORNIA
Bernard R. Maybeck, Powers & Ahnden, Associated Architects

level to the roof. The roof has a waterproof membrane of felt and asphalt. An asphalt pavement, similar to that in the street below, affords a surface where cars may be tried out and brakes tested on the roof without taking them outside of the building.

The floor system is of concrete beams and girders, reinforced with corrugated steel bars. The concrete is designed to withstand a safe stress of 5000 lbs. per square inch and the steel is designed to withstand a safe stress of 16,000 lbs. per square inch. The columns in the first story were made circu-

so as to insure obtaining a concrete strength of 2000 lbs. per square inch, giving a safety factor of four in the concrete.

The sloping roofs of the tower and certain parts of the front are covered with terra cotta tile and to secure permanence in this construction, copper inserts were placed in the concrete roof slab and the tiles were wired in place with copper wires. The projections of this tile roof are supported with a heavy beam corbel system of redwood timbers fastened to the walls with steel supports. These timbers were sandblasted to

bring out the grain, and oiled and stained to secure an antique effect.

The tower construction is of very massive type and presented some interesting design problems, as the tower columns do not conform to the columns in the lower part of the structure. Some of the concrete girders supporting the tower weigh as much as forty thousand pounds. Under the tower at the roof level there is an excellent room for a paint shop separated from the rest of the building.

The ceiling of the showroom is formed of Pecky cypress brought from Florida. This cypress is cut from the cypress that has lain in the swamps of Florida and has become worm-eaten to such an extent that the boards when cut present a surface full of worm holes and long indentations. This lumber is treated in an electric buffing machine to clear out all the indentations and give a sharp, clean surface which is interesting as an antique surface.

The natural slope of the property allowed Maybeck to use four floor levels in the main display room, each one foot higher than the other, which not only allowed a better display of the motor cars, for which purpose the hall is intended, but also strengthened the architectural effect by deepening the perspective. The floor line, rising four feet from entrance to apse, seems to meet the converging lines of column and ceiling at an illusionary vanishing point many feet behind the true one. If an imaginary wall were placed on each side of the central aisle column the result would be a mediaeval crypt. Maybeck tripled the single aisle unit to afford adequate support of the great weight above and achieve an impressive breadth. Soaring approximately one hundred feet above the street, the round tower on a square base with its interior dome of Cerculean, is an impressive feature reminiscent of similar towers in Southern Italy. The use of terra cotta tile on its roof is repeated at other points, striking a Mediterranean note of color and freedom.

EARLE C. ANTHONY BUILDING, OAKLAND, CALIFORNIA
Bernard R. Maybeck, Powers & Ahnden, Associated Architects

The severity of the base line in front of e building is broken by heavy planting. hree great wrought iron Persian lanterns ng in the archways to further stress the bt of the building to the architectural nius of Irania. As the eye first glimpses e building from across Lake Merritt, ere is a striking impression of rugged sinrity, detail being subordinated to mass, ne and color.

Pleasing as it may seem to the eye, hower, the technical appointments of the new ckard Building are a credit to its conructors. In the construction of the ramp stem, for instance, elaborate plans and nventional ideas were discarded. A tiny ackard car was built to scale in the tool om at the factory in Detroit, and it was is model car, together with a clay model the ramp system, that was responsible for ne design of the rap. For days, Maybeck, nthony and Arthur Kales pushed the tiny ır up and down the rap of the clay model, king off a little clay here and there whenver it seemed likely that it would offer an nstruction to the passage of a full size car. s a result it is impossible for cars to touch hile passing and no difficulty is found in riving in second gear from Hobart St. up the roof, so carefully have swing, pitch nd gradient been calculated. The movement of cars throughout several floors is falitated by an electrically controlled semahore system. Over 75,000 square feet f service floor space has been so clevrly laid out that service efficiency is at a naximum. Alphabetically lettered bays, esigned for efficient car storage and movent, expedite work and delivery. Seventyvo mercury vapor lamps give workmen nlight conditions at all time, as all shadws are eliminated by their subdued ilumination. At night their green glow on ne exterior is most pleasing. Similar lamps idden within the shrubbery give interestng color effects at night.

Every modern mechanical device that nakes for perfect workmanship has been nstalled so that tools, working quarters and ersonnel will always be at an efficiency eak.

DETAIL, EARLE C. ANTHONY BUILDING

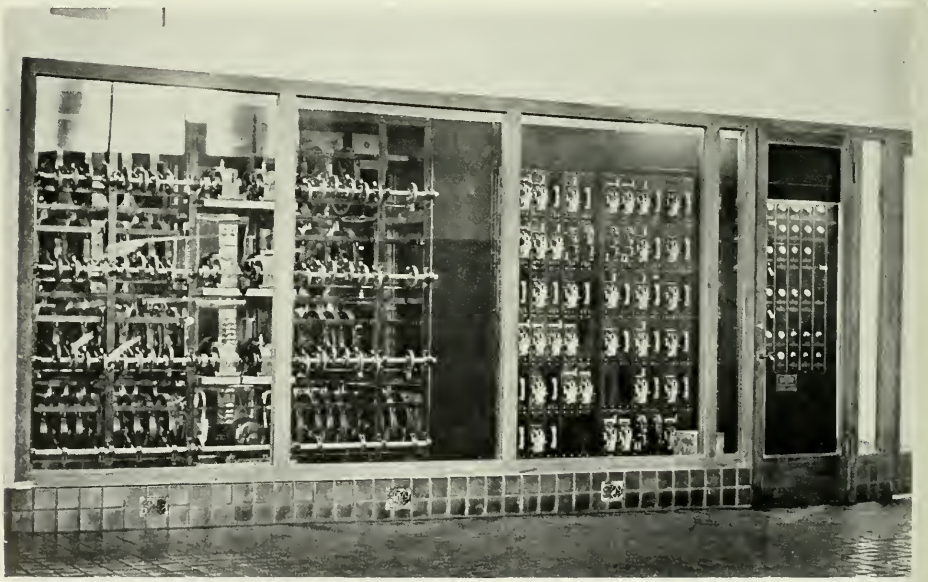
The lighting of the showroom is controlled by a huge automatic switchboard in-

DETAIL, EARLE C. ANTHONY BUILDING

stalled in a separate room with its own great transformer. Seventy-five concealed lighting units in the arches, containing the primary colors, make possible every condition of light from deepest midnight blue to full brilliant sunshine. A clock-timing device directs the blending of sunrise, mid-day, sunset and dusk effects.

Regarding the radical use of color in the building, Mr. Maybeck says he has always been its apostle, the seeds of its use having been implanted by the comments of a group of the world's greatest architects, who chose the winning plans of the University of California. Convention precluded the bold application of color and exteriors until Earle C. Anthony, intrigued by its possibilities, dared to give his architect a free hand in the matter. The result has already commanded national attention and experts declare the Packard Building, in using color for emphasis and beauty, marks the dawn of a new building era.

ADDITIONAL
PICTURES AND PLANS
OF THE
EARLE C. ANTHONY
BUILDING
WILL BE FOUND
IN THE
PLATE SECTION
PAGES 67 TO 73
INCLUSIVE



AUTOMATIC SWITCHBOARD, EARLE C. ANTHONY BUILDING, OAKLAND
Bernard R. Maybeck, Powers & Ahnden, Associated Architects

MODERN ARCHITECTURE and STEEL

By
Anton Buyko, Architect

ALL great architecture is identified with some particular material. Egyptian architecture with sandstone, Assyrian with clay, Greek and subsequent Roman with marble. And now the modern style which has unmistakably arrived is identified with steel.

We can lump the whole cause of the modern style in architecture in one word—steel. It is the use of steel that is responsible for the recent structural and artistic changes in architecture; that is impelling a new style of architecture. It is to steel that we are yielding in our present age. Man yields—not steel. A new day is upon us, and the reason for it is the invention of steel. Certainly this commodity is determining the course and direction of our new architecture by shaping the thoughts of our architects; the younger ones especially.

What else is the modern cry in painting, in sculpture and in other arts but an attempt to subdue and readjust old notions and ideas in order to meet the new turn of events caused by the direct and indirect influence of steel in our lives? A Goliath has grown up within our midst and is beckoning to us with a mighty gesture, and yet we are blind to its very presence.

Steel is not only dictating our new forms and our new methods of construction, but is even altering the requirements of our structures. As men adapt themselves to the earth, which is equivalent to saying as they learn to use its materials and their properties for their needs, new needs develop. For example, the discovery of steel has made possible the railway and the automobile, so that two new types of buildings, the railway depot and garage, have appeared on the architectural scene.

Due to the railway and the automobile, the present day architect plans differently from the architects of former times. City planning has been revolutionized by the new means of transportation and many of our important American cities are now struggling with the problem of adapting themselves to new conditions with city plans which were conceived and executed at a time when there were no street cars, railways and automobiles. We already anticipate the time when the flying machine shall again change our planning and give an entirely new aspect to our architecture—all due to the invention of steel which has made flying possible.

It is an odd catechism that we have been reciting all these years insisting that all the changes in architecture have been due to original ideas conceived out of the minds of men, when all the while the materials with which we have been working have been quietly and insistently demanding their expression and determining all our thoughts. The best that the theory of architecture can do is to conform to these demands.

We operate within the limitations of our structural materials. Historians have been content to ascribe the evolution of a distinct style of architecture to the impulse set up by a new religious or aesthetic movement, without concerning themselves with the material causes responsible for such movements. Similarly those who interpret history in terms of great men have ascribed marked changes in architecture to the contributions of world architects, without concering them-

selves with the effects that materials and new structural methods have had upon them.

How do the new materials and the technical processes of their use and the subsequent architectural forms originate? Do the architects create them? Few architects are responsible for any of these, and those that are responsible for original ideas and methods, if pinned down to an exact answer, would probably deny any such creativeness. In this they would be correct. An original architect is not so much creative as he is adaptive, and therein lies a world of difference. Creation suggests too closely the concept of making something out of nothing —a miraculous performance. The architect does not do this, but rather selects, arranges, assembles, adds and eliminates; in short, adapts, until he obtains a satisfactory solution to his problem. He builds upon previous methods and processes and thus builds his structure. Each new step is a variation of a previous step, either suggested by new relationships of building materials or forced upon the architect by changing technical conditions. Architects are aware that the creation of a new style, just for the sake of a new style, is not the path that leads to architectural development.

Steel, which arrived in practicable form some fifty years ago, was not the invention of some far-sighted architect, anxious to introduce a vertical feeling into American architecture and fill American cities with skyscrapers. In the case of steel, as with all other materials, architects have but submitted to the new technological conditions and adapted themselves accordingly. In brief, this has been the historical process of architecture. In the chemical laboratories, in the industrial field, new materials and new technical processes are evolved, chief of which has been the evolution of the process of manufacturing steel, and because of their superiority, the old materials and processes have been displaced, giving the architect new structural units—new sets of toys to play with.

Architects have been compelled to use new materials and furthermore the materials themselves, not the architects, determined design. The architect's control over a new material is negligible. He can only adapt himself and his work to the new materials; and it is the work of those architects who are able to conform and adjust themselves to their use that survives. The great problem of architectural designers is to express the new materials. Therein lies their function and their salvation.

The human intellect enters in as an adaptive agency only. It does not dictate as has been supposed. Human thought has not dictated the forms of architecture; these have forced themselves into existence by the sheer strength of the unchanging physical realities of materials. The rigidity of steel is not amenable to human foibles. We are compelled to accept it as it is and use it in accordance with its physical composition and its limitations.

The determining factor in the evolution of architectural forms has not been the "creative capacity of human thought," but the presence of specific materials on the surface and in the bowels of the earth, discovered at different times. This has determined architectural progress. The most that the keenest intellect can do is to use these materials logically, to build with them in accordance with their nature. Each particular building material has its own expression, due to its physical structure, its chemical composition, its tensile and compressive strength, its malleability, its brittleness, smoothness, hardness, softness and all its other numerous qualities, quantities and characteristics.

The architect can but try to find out the character and qualities of these materials and the significant fact is that the closer he adheres to the characteristics of these materials the better his architecture. The great cry for truth in architecture is the cry for a truer expression of our materials. Within the space of these things are hidden the aesthetic and artistic secrets of our past, present and future architecture. Man, the architect, works with these materials as he finds them and as he discovers more facts concerning their structural and aesthetic values, architecture changes.

In the presence of our new structural

material — steel — new architectural forms are being developed and old forms are being relegated to the past. And the process is a long and tedious one. Only after a long period of working with this new material, with its inevitable revealment of new information, contributed from many quarters and by a multitude of workers and investigators, will suitable and satisfactory ways of using this new material be ultimately arrived at and a better expression be achieved. This suggests the necessity for designers to be in actual contact with this modern material, steel. An exclusive draughting board experience cannot be conducive to architectural advancement. There is no royal road to the acquisition of satisfying new forms; one cannot proceed toward it directly. Designers must work with steel and with combinations of it with other materials, and in the process of work, knowledge of it will increase. New patterns, new arrangements appear or are suggested. The alert and vigilant architect quickly appreciates that which may prove satisfactory.

He makes a conscious choice, of course. But his choice is a biological choice in that his organism of selection makes the most advantageous choice; that is to say the most favorable choice quantitatively or qualitatively. A semblance of abstraction is apparent in the case of an architect who plans and designs a building, but in the last analysis the "ideal plan" is the most advantageous arrangement of elements to fit the requirements of the building, while the most satisfying design is the truest statement of the function of the structure as a whole and of its individual parts. "Form follows the function of architectural elements," has long been the philosophy of our most discerning architects, but going one step farther we observe that the function of architectural elements is inseparable from the properties of materials. These, in the last analysis, even regulate architectural proportions and control our decorative propensities.

All structural methods, such as the column and lintel or arch go back to the fundamental principle that matter has the capacity to bear a burden and, strictly speaking, any structural method is but taking advantage of the properties of materials. However, many ages elapsed before men utilized the column and lintel form of construction, and these were observed by him in nature or else suggested as the result of his own manipulations with wood or stone. Our advance in architectural methods has been not so much a matter of deduction as of happy circumstances leading up to a discovery of a new method of construction.

With the adoption of a new method of construction a new variation of the existing style in architecture takes place. The history of architecture is filled with the skeletons of rejected forms and technical processes which have outlived their usefulness and have perished in the path of new forms and technical processes. As in the world of living organisms, man included, there is a constant struggle between old and new forms and methods of construction, and only those survive which best meet the requirements of changing conditions.

In the development of the Gothic style we have a demonstration of the effect of a new method of construction upon a previous style of architecture. The pointed arch method of construction, which was suggested by experiences with the pure arch form, served in time to develop a distinct style of architecture. Without the principle of the pointed arch and the converging of its strains upon isolated points there would have been no Gothic architecture, despite the religious fervor permeating the Gothic period.

Since the evolution of architectural styles have often been contemporary with distinct religious or intellectual movements, the natural conclusion has been that these also have been responsible for the new styles. True, all great architecture is directly related to the aspirations and the emotions of mankind, and are reflected in its architecture. The emotional and intellectual phases of mankind are indelibly written into the architectural styles, but it is the inherent characteristics of materials that are responsible for new architectural ideas. Thought cannot be responsible for thought. The determinants for new architectural thoughts

are the qualities and properties of materials. It is to be anticipated in the light of parallel events in architectural history that with the evolution of the use of steel will come a new, or at least a modified, code of architectural ethics and aesthetic principles and that on the basis of these, new waves of cultural influence shall be set in motion. Steel shall not only determine the form of our new architecture, but also the trend of our advancing culture.

There is no intention here to deny the influence of purely intellectual factors or the intellectual activity of the architect. We reduce this activity, however, to an adaptive process and deprive the architect only of a fictitious "creative" capacity. The degree of development and the calibre of past great civilizations are known to us chiefly by their architectural remains, and high in the ranks of men stands the architect who crystalizes the philosophical thought and emotional phases of his race and time in works of enduring materials.

The modern architect's task is by far the most difficult of all, since he has so much past knowledge of materials and structural methods to work with, and added to this the presence of a new material—steel—which he must introduce into the "garden of his dreams" and which already has considerably altered all previous architectural concepts. Besides being an artist, in that he is sensitively attuned to the best traditions of human experience, the modern architect must also possess business and executive capacities, making his task a very complicated one. Whether he leans to the side of art or to the side of business, a host of material considerations determine his place and method of his expression, but he can the better adapt himself by knowing that the whole evolution of architecture has been a vast and intricate process of adaptation and not a series of humas fancies. The architect can analyze and anticipate so much the better if he knows the law. Knowing the law he can the better conform to the rules of the game and keep from making capital errors.

CHAMBER OF COMMERCE BUILDING, BERKELEY
W. H. Ratcliff, Jr., Architect

CITY RAMP GARAGE AT SPOKANE, WASHINGTON

Whitehouse & Price-Architects

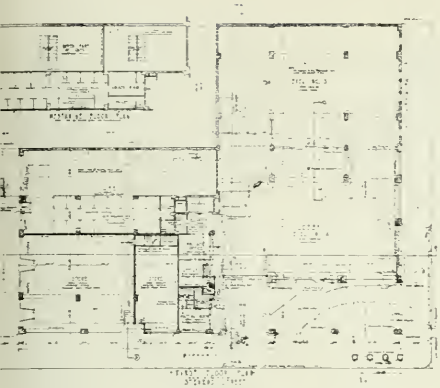
IN the City Ramp Garage, Spokane, the architects, Messrs. Whitehouse and Price, have done much to solve the serious problem of providing more parking space, and at the same time have designed a building that is an architectural asset to the city. Whitehouse and Price have planned a building that is typical of the modern trend in architecture, using their materials not to hide their identity but to proclaim their true intrinsic values.

The garage is of the motoramp type, and its construction is reinforced concrete.

One of the most attractive things about the building is its color combination. The main concrete surfaces, which consist of the many vertical pilasters with their interven-

CITY RAMP GARAGE, SPOKANE, WASHINGTON
Whitehouse & Price, Architects

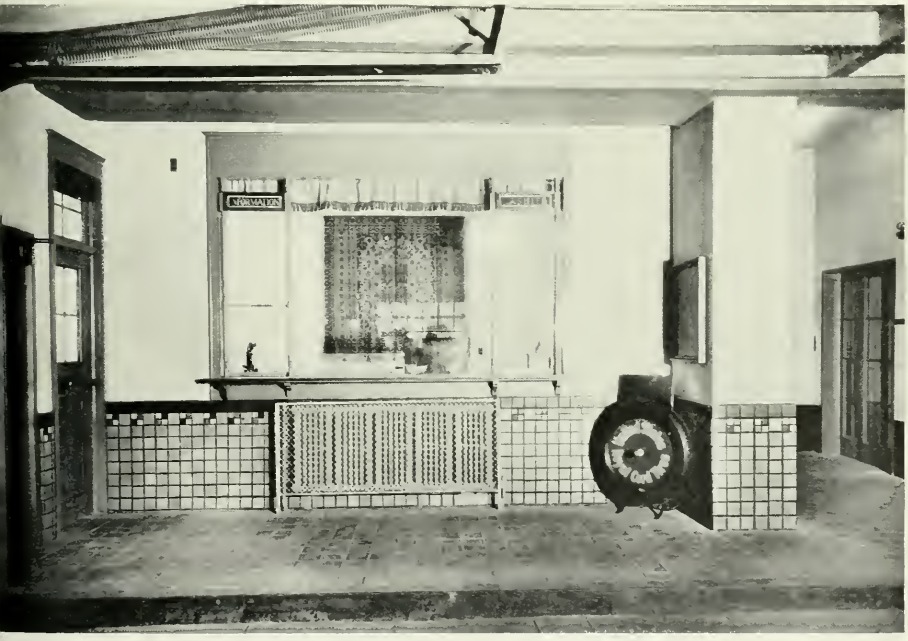
Photo by Cibby



GROUND FLOOR PLAN, CITY RAMP GARAGE
Whitehouse & Price, Architects

ng panels, have been finished in a heavy lastic ivory tone texture paint. The win-ows are set in spandrels of golden brown rick with insets of ornamental matt glazed ld gold and blue terra cotta. The lines of architecture and color scheme reach their greatest manifestation at the top of the building, forming the parapet, where the terra cotta is quite ornate.

The drive-in lobby is very spacious, and the garage is not handicapped as most garages are in this respect. The lobby is 40 x 70 feet in dimensions, without a single column to obstruct this area. At the border of this lobby towards the offices and rest rooms, an elevated walk about 10 inches above the utility floor, has been provided so that at no time is a patron endangered by incoming or outgoing cars while he is waiting for his car or doing business at the offices. Along this walk, and conveniently placed, are the cashier's office, a special waiting room for women, one for men, a parcel checking room, a public telephone booth, toilet rooms, and two high-speed automatic elevators to transport patrons to and from the floor levels on which their cars are parked. There is also provided an



CITY RAMP GARAGE, SPOKANE, WASHINGTON
Whitehouse & Price, Architects

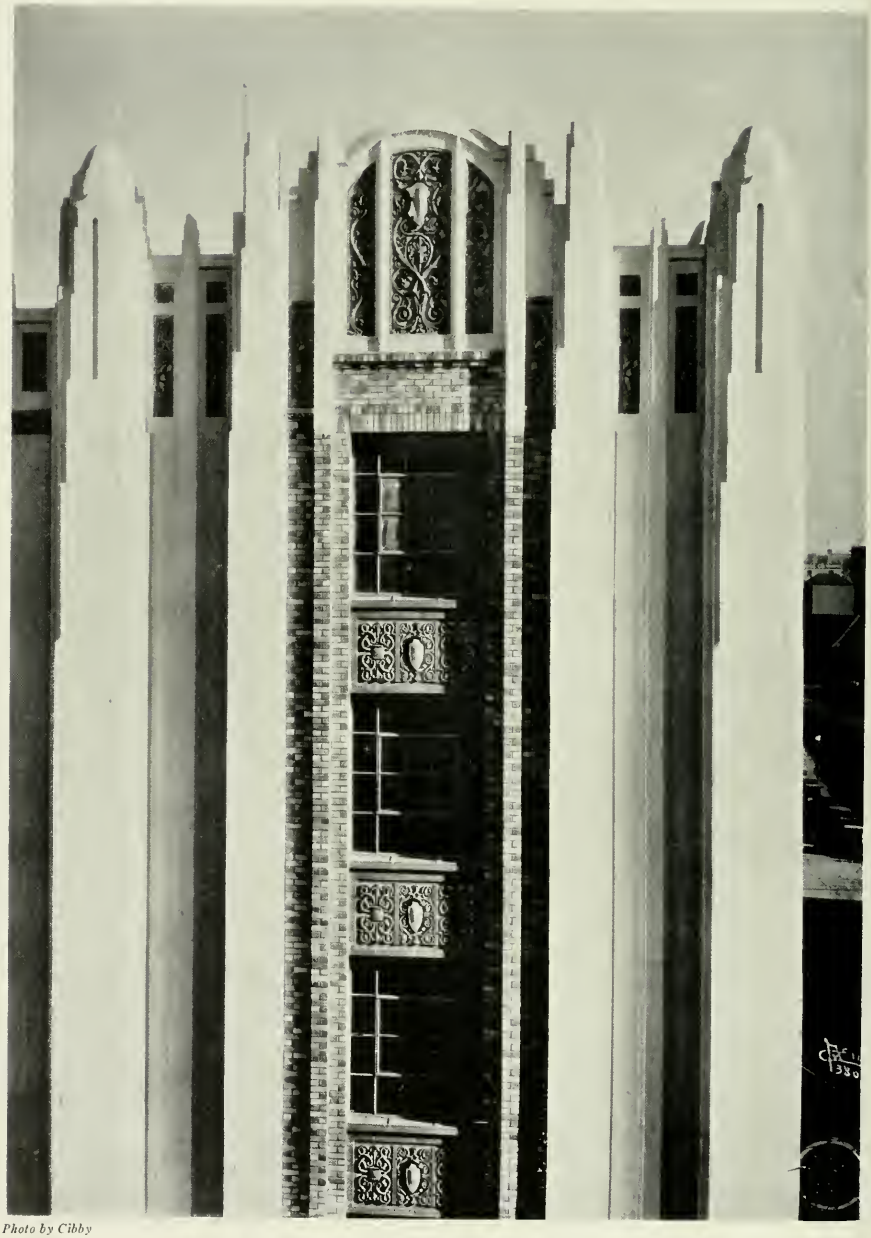


Photo by Cibby

DETAIL OF FACADE, CITY RAMP GARAGE, SPOKANE, WASHINGTON

WHITEHOUSE AND PRICE, ARCHITECTS

ndless belt manlift for the use of attend-nts only. The ground floor contains the rive-in entrance and exits, lobby, and serv-e station on the streets where traffic is ghtest. The rest of the ground floor on ne busier streets is given over to shops with ne thought that they will yield more reve-ue than from the parking of cars.

Cars are driven up incline driveways or amps rising half a story at a time. These amps are 20 feet wide and are banked on ne turns, and all sudden rises or falls have een eliminated. Open sides around the amps afford easy vision so drivers are able o see each other when meeting in the ramps nd allow of easy passing.

The typical floors are laid out in parking nits of 54 feet in width, which allows the arking of two rows of cars of 15 feet each n either side of a common aisleway 20 feet ide. This system greatly facilitates park-ng, as one backing is all that is necessary ith no extra switchbacks.

The City Ramp Garage is considered pokane's finest garage and most beautiful uilding of the commercial type.

INTERNATIONAL EXPOSITION AT SEVILLE, SPAIN

THE American exhibit at the International Exposition at Seville, Spain, hich opens March 15th, will present a omprehensive survey of the activities of ne Federal Government, embracing group nd individual models, graphs, charts and aps depicting the work of the twenty-three ureaus and independent establishments of ne Government.

Probably one of the most interesting cen-ers for visitors at the exposition will be the nited States cinema building, where mov-ng pictures of virtually every phase of ncle Sam's activities will be shown as an djunct to the physical exhibits. These will nclude several historical films and films racing the growth of some of our great in-ustries.

Housing the exhibits are three structures, esigned by William Templeton Johnson, rchitect, of San Diego. Of Spanish Colo-ial architecture as a compliment to the country whose early settlers introduced it here, two of these buildings, the Exhibition Palace and the Cinema Building, have been designed for temporary use only. The third is a two-story stone structure which, after the close of the Exposition, will be the permanent home of the United States Consulate, and is complete in every detail of comfort and convenience known to American home-making.

In this connection the eleven other nations which are erecting permanent buildings are providing them with libraries and reference rooms similar to those which the United States Consulate will have, in keeping with the plan of participating nations to establish an international university at Seville.

With the opening date approaching it is reported that arrangements which have been going forward for some time to take care of the anticipated throngs of visitors to the Exposition are nearing completion. Several new hotels have been erected at Seville, and hundreds of small houses have been built to provide for guests. In making space for these new structures streets have been widened and entire city blocks of old houses have been torn down.

The Exposition will open with a replica of the caravel of Columbus returning from the sea, symbolical of the link which binds Spain to the New World. It will be received by King Alfonso and Primo de Rivera.

A New Art

Air travel has created a new art for architects—decorative roofs—Oscar W. Rosenthal recently pointed out to the Associated Building Contractors, of which he is president.

Using roofs for tanks, pipes, radio aerials and other unsightly objects on the plea that "nobody sees them on the roof," must give way to a decorative scheme, Rosenthal said. In the new order of things, he declared, "the front door is the top floor."

Enclosure of water tanks in attractive towers was suggested. It was predicted, too, that cornices will go out of fashion because, viewed from above, they are unattractive.

MY EUROPEAN IMPRESSIONS

By
C O Clausen, Architect, San Francisco

XIII—PALAZZO VECCHIO

ONE of the most predominating buildings in Florence is the Palazzo Vecchio (meaning "Old Palace"), a castle-like structure with huge projecting battlements and a long, slender tower over three hundred feet high.

It is interesting to observe how the tower overhangs the street, its front wall resting on the face of the powerfully corbelled cornice of the palace. The belfry in this tower contained the historic "Vacca" (the cow), the great bell that summoned the citizens to the piazza to attend meetings and discuss civic affairs.

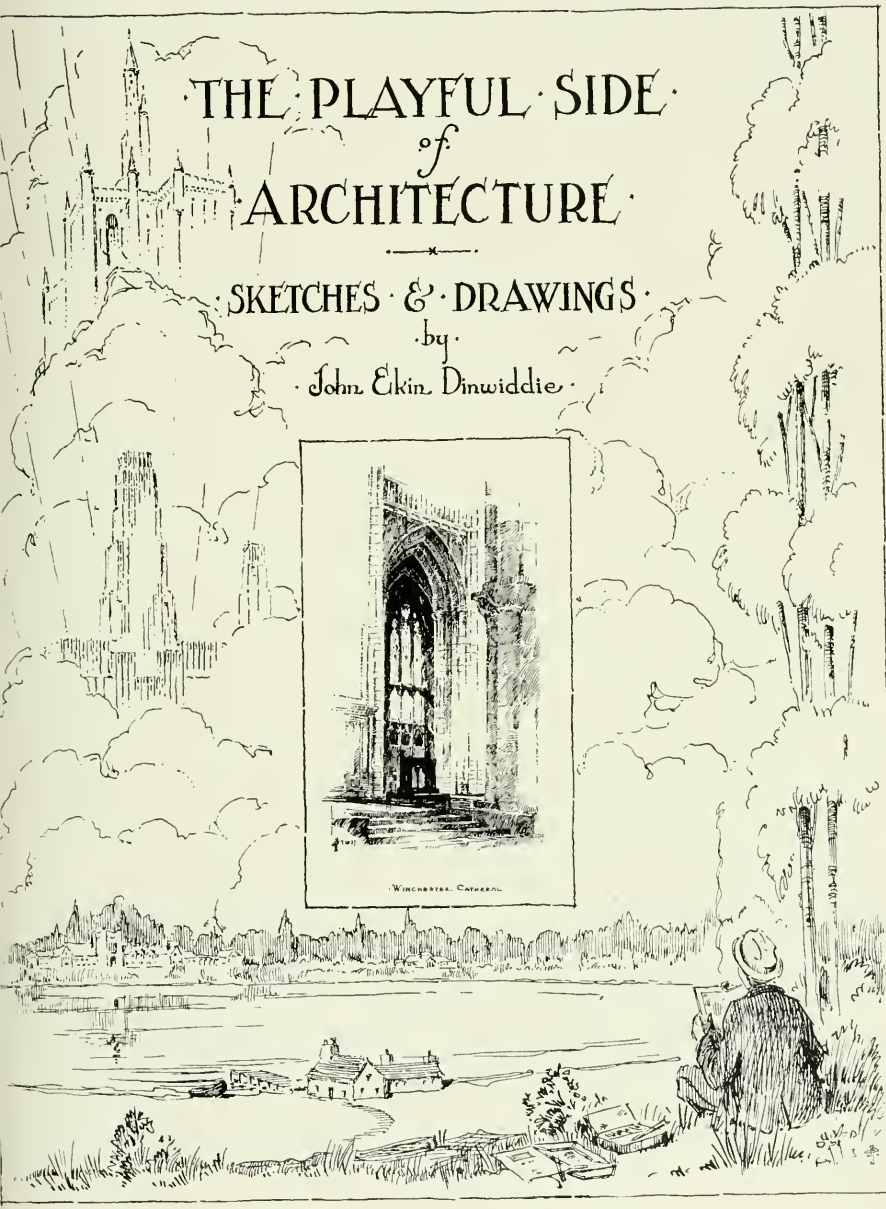
The Palazzo Vecchio was erected in 1298 and has served as the Senate House of the Republic and later as the residence of Cosimo I, the head of the great Medici family who gave eight dukes to Tuscany, two queens to France and four popes to Rome. The remarkable old structure is still in use as the Town Hall of Florence. These old walls were once lighted by the red glare of the fire which consumed the form of the Dominican Monk Savonarola, who was condemned to death in the year 1498 by Pope Alexander VI, for his endeavors to reform the corruptions of his times. A bronze tablet in the pavement marks the spot where the martyr dier and on the anniversary of the tragedy the tablet is always heaped with flowers in memory of Savonarola and sorrow for his cruel death.

PALAZZO VECCHIO, FLORENCE

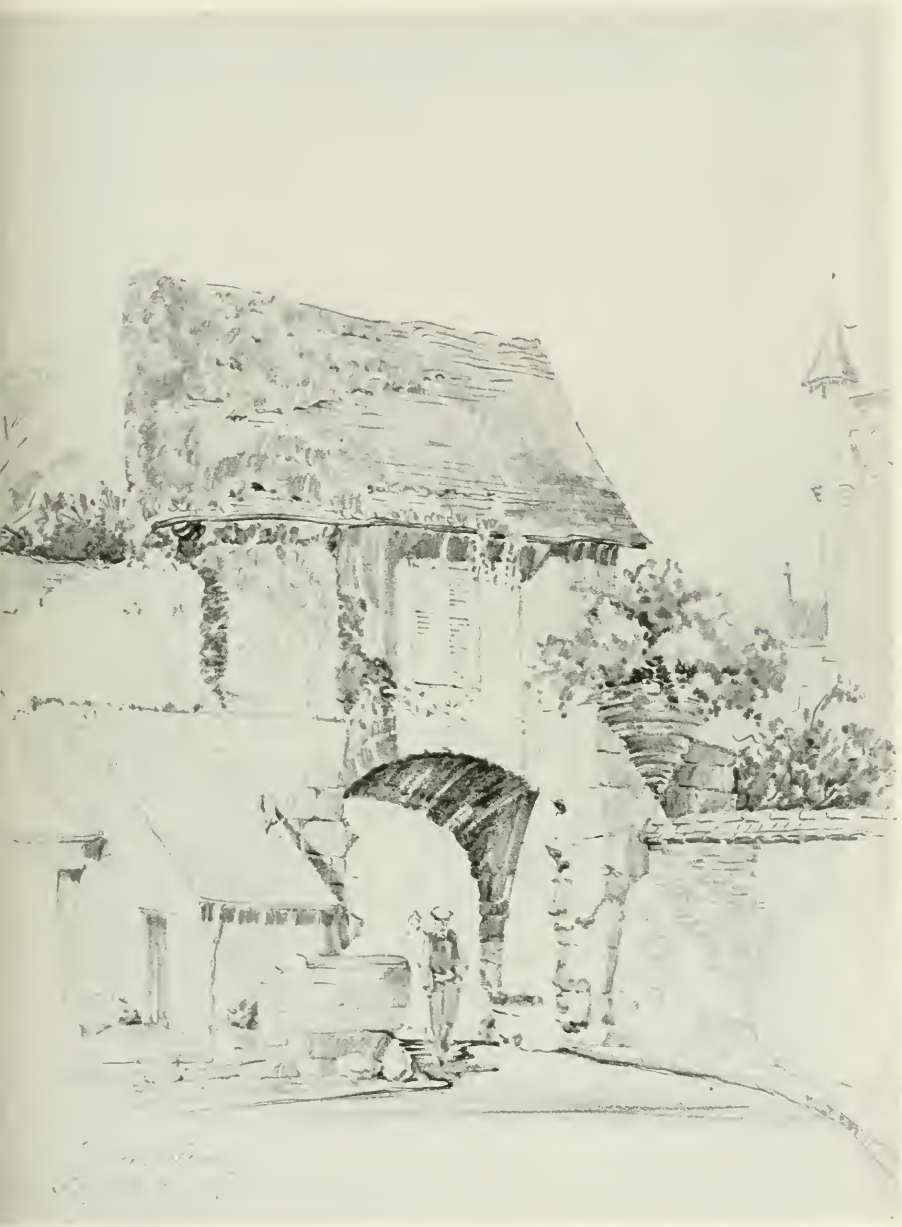
Away up in the tower I entered the cell occupied by Savonarola just before his execution, and as I looked out of the tiny prison window over the beautiful city I recalled much of George Elliot's work "Romola," which every traveler to Florence should read, as it is so full of romance of the old Florentines and the days when Savonarola lived, which was the identical time when Columbus was waiting and arguing for the three little ships with which he was to sail from the port of Palos to the New World.

Strolling through the streets of Florence one is everywhere reminded of great men. Architecture, sculpture, art and literature were developed greater here than in any other part of Italy. As you walk along, you tread the pavements upon which formerly fell the footsteps of Dante and Boccaccio. Through these same quaint streets once passed Michael Angelo, Benvenuto Cellini, Brunelleschi, Ghiotto, Leonardo de Vinci and many others whose works surround you everywhere.

Florence still maintains its quaint old medieval spirit, and its ancient buildings have not given way to modern development which has taken away the charms of so many of the old European cities.

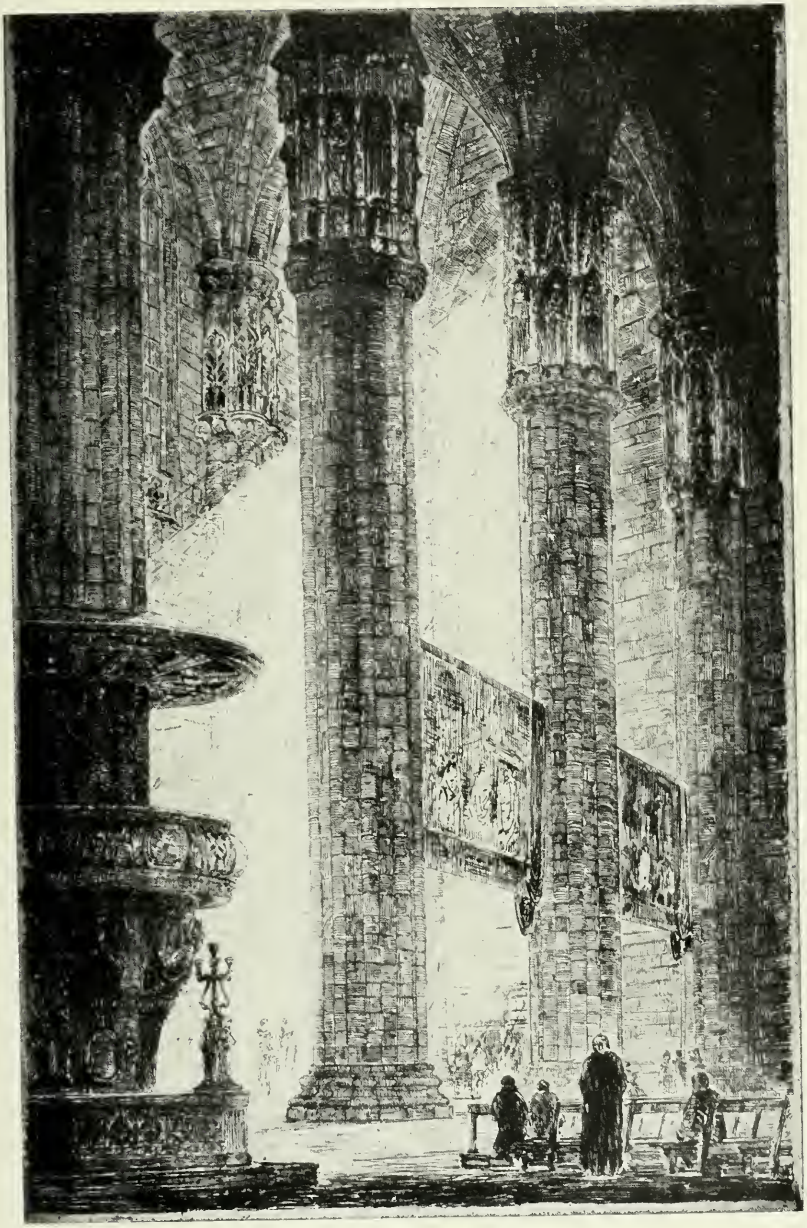

THE PLAYFUL SIDE
of
ARCHITECTURE
SKETCHES & DRAWINGS
by
John Ekin Dinwiddie
WINCHESTER CATHEDRAL

STREET SCENE IN NEVERS, FRANCE

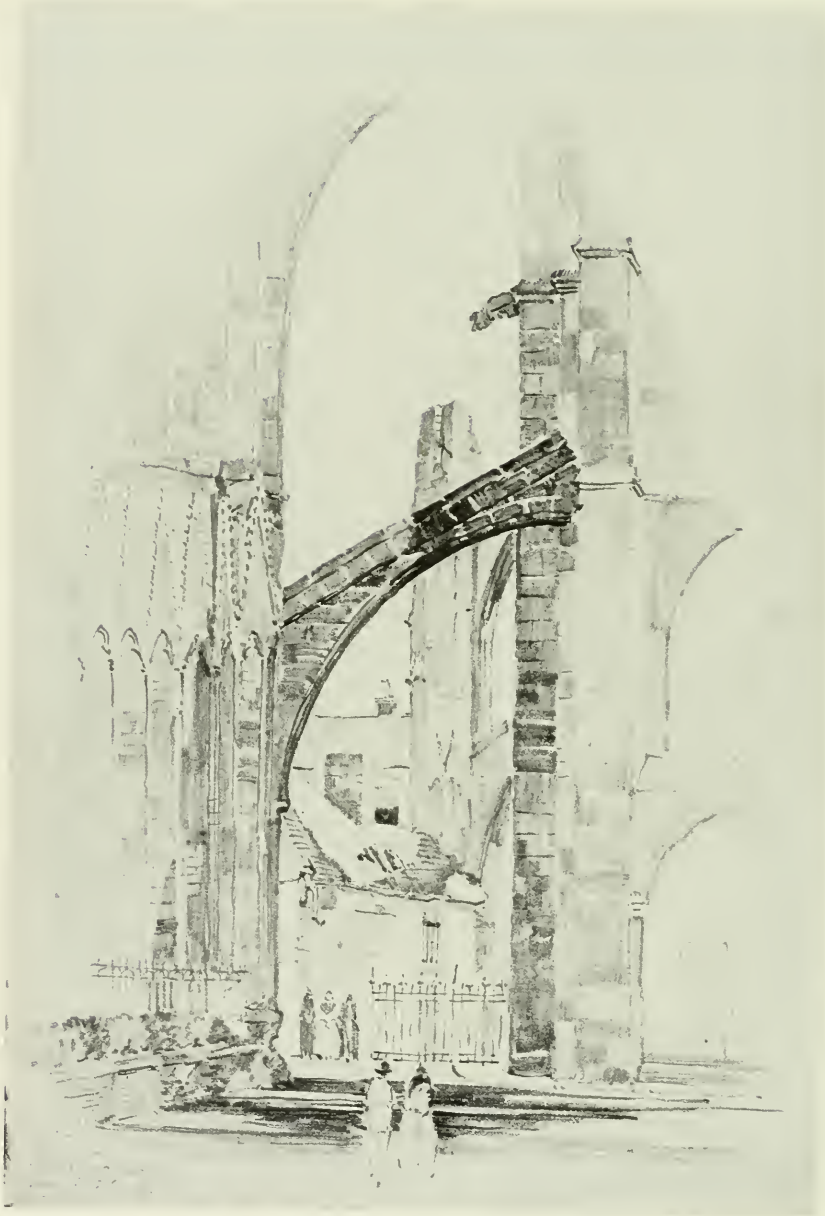


JUST TEEMING WITH QUAINTNESS

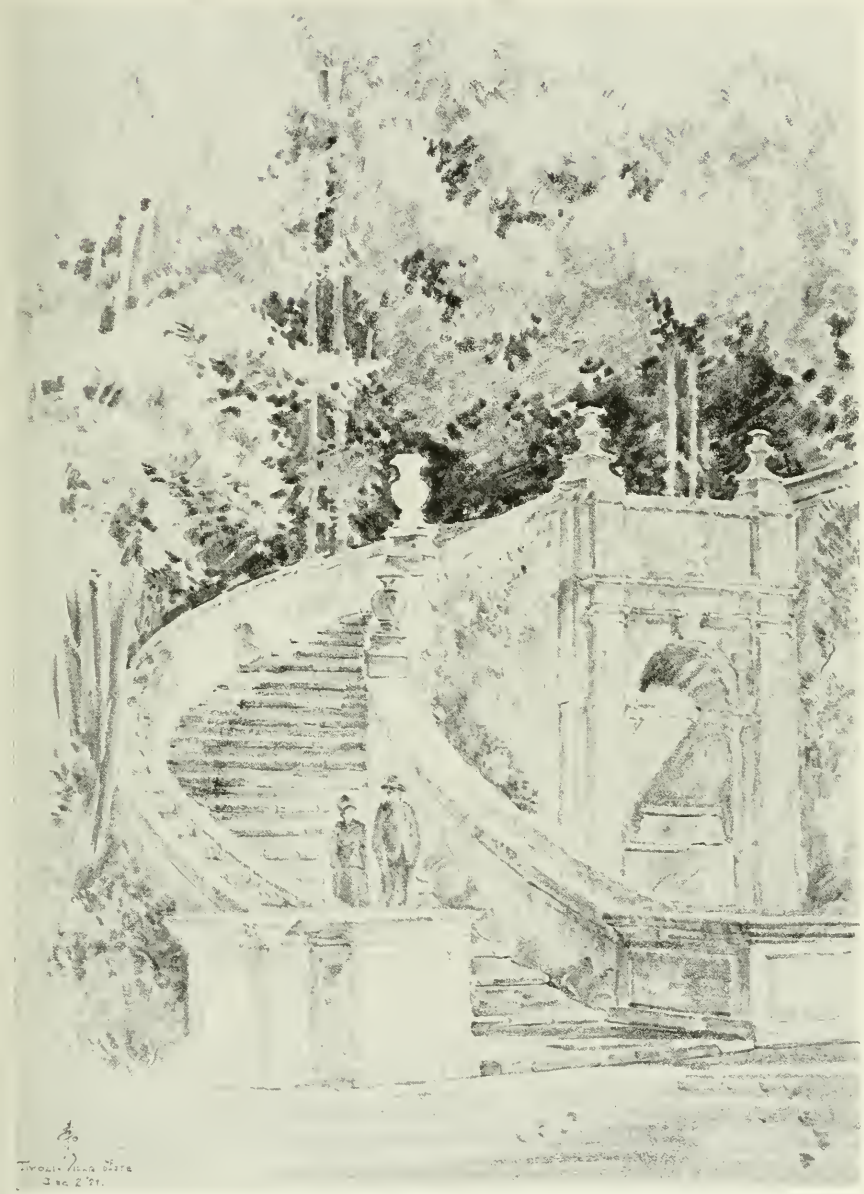
AN IMAGINARY STREET SCENE IN FRANCE



INTERIOR OF MILAN CATHEDRAL, ITALY



A FLYING BUTTRESS OF TOURS CATHEDRAL



GRAND STAIRWAY IN VILLA D'ESTE, TIVOLI

CONCRETE SPECIFICATIONS

By: Joseph A. Kitts,
Consulting Concrete Technologist

THE relative merits and defects of the three usual types of concrete specifications are considered in this article and a new form of specification is proposed, incorporating the best elements of the older forms and adding new items.

The object and basis of the proposed specification is Quality and Economy. The principal provisions for this purpose are as follows, in order of their importance:

(1) Maintenance of strength, density, weight or other required qualities by technological control of the concrete manufacture, on the job.

(2) Absolute basis proportions of cement, aggregate and water determined by prior and sustained testing on the job.

(3) Modern storage, measuring, mixing, transporting, placing and curing facilities.

(4) Sufficient and skilled workmanship.

(5) Cement paid for separately; and

(6) Materials of standard quality.

It is proposed that responsibility for control of quality be placed upon a concrete engineer-physicist, representing the architect or engineer for the owner, representing the builder, acting as agent for the owner, or representing the owner direct. The contract, accordingly, provides that cement be paid for separately by the contractee.

These provisions are proposed as fair and attractive to the honest and competent contractor with modern measuring and handling equipment while offering no inducements to the unscrupulous and incompetent contractor with equipment not designed for quality production.

The proposed specification is designed with special regard to the fact that production of concrete is a manufacturing process on the job. It aims to encourage concrete research, to promote progress in and reward a knowledge of the physics and economic technology of concrete. It is proposed as the best means to advance concrete as an economical, reliable and durable structural material.

There are three general methods of specifying how concrete shall be made in order to secure the quality required for the purpose. In the order of chronological precedence they are as follows:

(1) Arbitrary proportions, 1-2-4, etc.

(2) The water-cement ratio specification; and

(3) The strength or quality specification.

It is the purpose of this article to point out the relative merits and defects of these types of specifications and to present the elements of a specification essential to the attainment of the required results in the most economical, practical and positive manner.

The oldest form of specification, no doubt, is that specifying, in some simple ratio, the proportions of cement, fine and coarse aggregate.

The greater proportion of concrete today is specified and made to the well-known 1-2-4 ratio. It has the advantage of simplicity, is easy to remember, and, with the prevailing fine and coarse aggregate, is often an efficient concrete mixture. For a concrete of an approximate compressive strength of 2000 lbs. per square inch, it can be trusted to give remarkably good results 75 per cent of the time without much effort for exact measurement, etc. When concrete of 2000 lbs. strength is the basis of design, however, it is certainly trusting to Providence to expect to get it by specifying a 1-2-4 or any other fixed ratio of mix. The

Editor's Note—Mr. Kitts is associated with Lewis H. Tuthill as Kitts & Tuthill, Mills Building, San Francisco.

1-2-4 mix varies in strength from 500 to 5000 lbs per square inch at 28 days, largely because of disregard of the water-cement ratio and because of the chance grading of the mixed aggregate from fine to coarse, silt, organic matter, inaccurate measurement., etc.

The absolute volume of ingredients in a a 1-2-4 mix may vary as follows one time and the next because of the variations in the density of the material, inaccuracies of measurement and lack of water-control:

Water	Cement	Fine Aggregate	Coarse Aggregate	Cement Per Cu. Yd. Sk.
0.6	0.6	.8	1.8	8.5
1.6	0.4	1.6	3.2	5.1

The first would most likely be 5000-lb. and the second 500-lb. concrete.

The fixed specification rewards the unscrupulous contractor, who skins the cement and is liberal with the water. It penalizes the honest contractor who uses the amount of cement specified and as little water as practicable. The less water used the less concrete obtained per sack of cement and ton of aggregate.

The Fuller method of grading and proportioning for maximum density represents one of the great steps forward in the science of concrete proportioning. Proportions determined and fixed by a single set of tests of the materials today, degenerate into arbitrary proportions tomorrow, however. The fixed 1:2¼:1¾:2 mix, so determined, is just as apt to be worse (on the average) as better than a fixed 1:2:2:2 mix. The Talbot-Richart and the Kitts-Peugh methods of grading are outgrowths of the Fuller method and more adaptable to the advanced technology of today.

Another form of the fixed proportion specification is that of so much aggregate to a unit of cement, as 1-6, etc. The specification of six parts of aggregate to one of cement, as an example, is an improvement over the 1-2-4 specification only in the case of skilled and honest control of the proportions. Under unintelligent control and careless contractors, it is a worse specification than the 1-2-4, for it is as important to control the sand-cement as the water-cement ratio. The latter depends upon the former. Increase of the sand to cement ratio increases the water to cement ratio for essential workability; a greater amount of concrete to a unit of cement is the reward of the skinning contractor; and the owner gets a building with a safety factor of one which sometimes falls down on his head or those of his people.

The fixed proportion specification does not recognize, encourage nor reward a special knowledge of concrete, in fact, it is a barrier to the application of skill in proportioning concrete for the optimum of strength, density, impermeability, durability and economy. It discourages concrete research, retards progress in the knowledge of the physics and technology of concrete and results in inferior concrete at an excessive cost.

In the light of present day knowledge of concrete, the fixed proportion specification is not economical as, in lieu of skilled proportioning, it requires from $0.35 to $2.00 (increasing with strength required) excess cement per cubic yard of concrete for the same quality. In fact, it is not possible to duplicate quality, obtained by scientific proportioning, by the use of excess cement; the cement is adulterated with silt, dissipated by excess fines, diluted with water, vitiated by poor grading of the aggregate, or its efficiency destroyed by a combination of these conditions.

Finally, the arbitrary proportion specification does not specify what is wanted, but is an attempt to get the quality required by specifying something else.

The water-cement ratio used in a concrete mix has a very definite effect upon the strength, density, impermeability, weight and durability of the resulting concrete. Sufficient water must be used to secure plasticity or essential workability, flowability, and cohesion of the fresh mix. More water than that reduces the strength, density, impermeability and durability. This law is so important that Professor Abrams, who discovered it, believes that the proper specification for concrete is the water-cement ratio specification.

Like the 1-2-4 specification it would appear to be quite simple. Prof. Abrams shows that for 2000-lb. concrete you should have a water-cement ratio of 1.0; for 500-

lb., 2.0, and for 5000-lb., 0.5. In actual practice, however, it is not as simple as that, as there is always free moisture in the aggregates, and to determine this and make the proper readjustments requires the constant attention of a physicist. Further, the concrete must have not only strength but workability, uniformity of texture, density and, withal, economy. This means that the absolute volume of mixing water, the absolute volume of cement and the absolute volume of particles of each diameter must also be taken into consideration and with practical and technical skill.

Another aspect of the water-cement ratio specification is that, with different cement, aggregates and skill of control, the water-cement ratio strength equation is different, as shown by tests at various places as follows (in which x = W/C = water-cement):

Wisconsin ..... $S = \frac{17{,}800}{10^x}$

Texas ..... $S = \frac{12{,}400}{7.94^x}$

Ontario ..... $S = \frac{18{,}000}{9.02^x}$

Toronto ..... $S = \frac{17{,}000}{9.7^x}$

Philadelphia ..... $S = \frac{12{,}000}{11.9^x}$

Melones Dam ..... $S = \frac{900}{3.7^x}$

Abrams' ..... $S = \frac{14{,}000}{7^x}$ skilled control

Abrams' ..... $S = \frac{14{,}000}{9^x}$ unskilled control

Taking values of water-cement ratio at 0.5, 1.0 and 2.0, the following strengths are shown:

W/C	0.5	1.0	2.0
Wisconsin	5600	1780	178
Texas	4400	1560	197
Ontario	6000	2000	450
Toronto	5450	1750	181
Philadelphia	3480	1000	85
Melones	4700	2430	64
Abrams, skilled	5280	2000	286
Abrams, unskilled	4670	1550	173

This shows that there is no absolute water-cement ratio formula for the strength of concrete. There is, likewise, no other simple formula for the manufacture of concrete any more than there is for cement, steel, gasoline or shoes. The water-cement ratio is an important element of the specification, if attended by scientific skill.

The quality (strength, etc.) specification is coming more and more into favor. As knowledge of concrete becomes more general, there is no doubt but that the quality specification will become the general rule.

To specify the quality required is logical, practical and scientifically correct economically and technically. It is the best means to promote efficiency and quality in production, to encourage research and progress, and to increase and reward a knowledge of concrete.

The usual quality specification differs from the standard specification only in that it provides for competent technological control of the concrete manufacture and a separate form of payment for the cement used. The engineer or architect representing the owner usually assumes the responsibility of control and results. Where the responsibility for results is put upon the contractor, mutual control is maintained or the contractor has his own control and an independent check is maintained by the contractee.

Concrete is manufactured on the job (the laboratory, proportioning, mixing and placing plant). The practical and scientific details of that manufacture are quite as complex and comprehensive as those of any other product. The manufacturing of concrete of quality with economy requires thorough, constant and understanding technical and practical control of proportioning, measuring, mixing, placing and curing, in co-ordination with and supported by, cement, aggregate and concrete testing as a daily routine part of such production con-

trol. Experience with quality control on several millions of cubic yards has shown that it is more economical and more efficient than the rule of thumb methods passed down from the antiquity of five or ten years ago.

A new and important source of quality concrete, for the small as well as major urban projects, is the modernly operated, laboratory controlled central proportioning and mixing plant. This makes it possible to obtain quality concrete with economy in any volume from one cubic yard up. In urban areas, at least, quality control is economical on projects of 100 cubic yards or more and on one cubic yard or more where there is a concrete factory with proper facilities for delivery.

Given the conditions: (a) 1″ maximum aggregate, (b) 6″ to 7″ slump concrete, (c) cement $3.00 per bbl. and aggregate $2.00 per ton delivered to the mixer, and (d) 2000-lb. and 3000-lb. concrete made on the site—the relative costs of quality basis and arbitrary basis controlled concretes are as follows for projects of 100 cubic yards and less:

Total Cubic Yards of Concrete in Job	ARBITRARY BASIS CONTROLLED		
	Cost of Control	Cost of Materials	
		2000-lb.	3000-lb.
1000	$210	$7580	$9310
900	198	6830	8380
800	184	6070	7450
700	172	5310	6520
600	156	4550	5580
500	141	3790	4660
400	124	3030	3720
300	105	2270	2790
200	83	1620	1870
100	56	760	930

Total Cubic Yards of Concrete in Job	QUALITY BASIS CONTROLLED				
	Cost of Control	Cost of Materials		Net Savings	
		2000-lb.	3000-lb.	2000-lb.	3000-lb.
1000	$430	$7090	$8420	$270	$670
900	400	6380	7580	248	598
800	365	5670	6730	219	539
700	333	4970	5890	179	469
600	295	4250	5050	161	391
500	258	3540	4210	133	333
400	218	2840	3370	96	256
300	176	2130	2530	69	189
200	130	1420	1690	53	133
100	77	710	840	29	69

Quality control involves more skill and labor and costs more than arbitrary control, but it effects savings of $0.35 to $2.00 per cubic yard by the efficient use of materials.

RECOMMENDED SPECIFICATION

Quality concrete with fundamental economy is provided for by the following specification:

CEMENT:

Supplied or paid for separately by the contractee;

A. S. T. M. Standard Portland Cement.

AGGREGATES:

A. C. I. Standard quality and maximum size;

Separated into (3 to 6) sizes as follows—.

CONCRETE:

A. S. T. M. Standard test average compressive strength at 28 days, —— lbs. per square inch. Not more than 10 per cent of test measurements shall fall below 80 per cent of the required strength. (This is a tolerance for usual minus errors of the compression test measurement);

Density not less than———;

Barrels of cement per cubic yard of concrete not less than (*state minimum as established by the concrete technologist in preliminary tests of the materials to be used*);

Water-cement ratio not greater than (*as established by the preliminary tests*);

Mixed aggregate uniformly graded to Talbot-Richart equation $r = 1-(d/D)^n$ or the Kitts-Peugh equation

$$r = \frac{1-(d/D)^m}{1-(A/D)^m}$$

in which (r) is the proportion by absolute volume retained on screen openings of (d) inches, (D) and (A) are the maximum and minimum sizes of the aggregates and (m) and (n) are exponents; and

Slump (with particles over 1½″ excluded) not less than nor more than the following schedule:

Maximum Size of Aggregate	Slump
¾″	7 ″-9 ″
1 ″	6½″-8½″
1¼″	6 ″-8 ″
1½″	5½″-7½″
2 ″	5 ″-7 ″
2½″	4½″-6½″
3 ″	4 ″-6 ″

(In the interpretation of this specification, it is the intent that the workability, flowability and cohesion of the fresh mix shall be suitable for the purpose, that it may be placed without an extravagant expenditure of labor and with a minimum of resulting honeycomb.)

Mixing time not less than 1½ minutes after all materials are in the mixer and before starting discharge.

Competent labor of placing not less than one man-hour for every ——— cubic yards;

Concrete placed in horizontal layers 3 to 10 times the maximum size of aggregate in depth;

Fresh concrete continuously deposited on fresh concrete after starting the pour, and

Kept constantly wet for 10 days after placing and at a temperature not less than 40° F. nor less than an average of 50° F.

PLANT:

Approved modern batch mixer;

Cement and aggregate weighing batchers;

Mixing water to be measured by a metering device accurate to 1 per cent;

Dry storage for cement;

Self-cleaning aggregate bins;

Slope of chutes not less than 1 vertical on 2½ horizontal; and

Such other equipment as is essential to the delivery of concrete without setting or separation in transit.

(It should be appreciated that the contractor with a modern plant can produce quality concrete more economically than the contractor with an antiquated plant.)

Pre-testing of materials and control of the proportions of all materials, admixtures and water, maintained by a concrete technologist representing the contractee [through the (Architect) (Engineer) (Builder)] and workmanship in mixing, placing and curing subject to his direction, the contractor to co-operate with him fully to produce concrete of the quality and workmanship specified.

The concrete technologist will provide one man-hour of efficient laboratory and inspection control for every ——— cubic yards or less. Tests of materials shall be constantly maintained on the job and the absolute basis mix sustained by varying the measured proportions as the quality of the materials vary and as the individual aggregates vary in moisture content, absorption, bulking, grading, density, specific gravity, etc. The absolute basis mix shall be (a) the absolute volumes and gradations of sizes of rock particles, (b) the absolute volume of cement per cubic yard of concrete, and (c) the absolute volume of mixing water; and shall be determined by the concrete technologist for the particular conditions and purposes.

This briefly outlines the essentials as affecting the control of the materials and the manufacturing process. It should be appreciated that no specification can produce quality concrete without the technically and practically skilled workman, and no workman, however skilled, can produce quality concrete without the authority of a practical and scientific basis specification.

This Bridge, Designed and Constructed by the California State Highway Department, is built on a 7 per cent grade and a 10 per cent curve

DONNER SUMMIT MEMORIAL BRIDGE, SIERRA NEVADA MOUNTAINS, CALIFORNIA

WHAT PRICE HEAT?

IS the question of heat a paramount issue with the architect and his client? If it is, does it not behoove us to analyze this subject retty thoroughly before we jump into some orm of heating which will prove unsatisactory, costly or insufficient?

Of primary importance is the choice of uel. What fuel shall we use to heat our ome, office, apartment house, or what we ıay have? What items enter into the cost of eating? Is the fuel cost the only cost? What of the cost of maintenance, the cost f depreciation, the interest on the investıent, to say nothing of the intangible costs r resultant cost, directly traceable to the ype of fuel selected? Are these costs heatng costs or products of the imagination?

The first cost usually considered is fuel. n considering this, do we consider all exenses in connection therewith? Are we inluding the cost of the actual fuel, the cost f ignition or pilot light, the cost of power o run fans, pumps, etc.? To get the cost of uel these items must be considered and not ightly passed over as insignificant. One ıust also consider the interest on money inested in fuel bought, but not yet consumed. While this may be a small item, let us find ut what it is and put it down where we can ee just how small or large it is. With coal, ne must consider also the cost of kindling he fire, the fuel to start, etc. When these tems are included the various costs should e set down in their respective columns and eserved for further consideration in the otal. This item is usually the only one conidered, but let us consider further.

What about interest on the investment? Ve pay out good money for an installation nd usually forget it, but how much would that money earn for us at current rates of interest were it invested instead of lying idle in a heating plant? If we invest $1500 in equipment to utilize one type of fuel and $500 for the same equipment to utilize a different type of fuel, then the first type of fuel should be charged, with money at 8 per cent per annum, with $120 per year and the second with $40 per year, and these items set down under their respective columns after the item "Interest on Investment," to be added into the total cost of heat.

Having disposed of these two items, what is next on the list? How about maintenance? Do the grate-bars burn out, and if so, how often; and what does it cost to replace them? Does the furnace have to be relined, due to excessive heat? Do the burners have to be replaced, and how often and at what cost? Do pumps and motors have to be replaced? Do elements burn out, and what is the cost to replace? Do flues have to be cleaned? Let's not mislead ourselves. Face the expenses and put them down where we can all take a look at them. Someone must pay for these items eventually, so what may we expect? Itemize them and put them in their respective places to add to the total.

Then comes our old friend "Depreciation." How long will it be before our $1500 or $500, or whatever we spent, must be spent again? For when the equipment we are now purchasing and installing is replaced we have spent all of our original investment and it becomes expense of heating. That portion of it which is gone each year is our annual depreciation, and is just as much a heating cost as the dollar that is consumed in fuel. Our total investment divided by its life in years gives the annual

cost. Figure it out and set it down to add in to the total.

Summarizing the four major items, namely fuel cost, interest on investment, maintenance, and last, depreciation, we should set opposite these items the four major fuels.

We have set up a form for you to follow and compare for yourself facts and figures before making an installation.

	Oil	*Elec.*	*Gas*	*Coal*
Fuel cost				
Interest on investment				
Maintenance				
Depreciation				
Total				

In addition to the above items it is fair to consider the intangibles such as cleanliness, ease of operation, availability of fuel, trend of cost of fuel and then form your opinion as to what fuel you would feel safe in using or recommending to your friends and clients. You may feel sure how you will come out before you start, but you may change your mind as you go through the process of calculation. Anyway, it won't cost you anything to try it once before you condemn or praise any fuel. The main issue is to get the facts from people who know. You should get your figures accurate, set them down and make your own table and see how you come out. Do you really know what price heat? Why guess?—*C. P. Hering.*

ARCHITECTS SHOULD SIGN THEIR WORK

RATHER than being reprehensible, declares William Orr Ludlow in the *Institute Journal*, signing one's work is a duty which the architect owes to the public and to himself. The American Institute of Architects approves it, in fact, recommends it, and architects individually quite generally assent to it.

"Yet it is not generally done," continues Mr. Ludlow. "The reason for this laxity is laziness. There are very few who will contradict the trite statement that the name of the author of any kind of work of artistic value or of special prominence should go with the work, but there are few who seem to realize the value of it, and of the value of taking the trouble necessary to bring it about.

"By signing buildings, we interest the public in architecture, by attaching to architecturally worthy buildings some personality. If the names of Rubens, Murillo, Rembrandt, or even lesser painters were unknown in connection with their paintings, what would be the effect on the interest of the public? By signing buildings, we help to educate the public to the idea that a really good building is a work of art, not merely a structure, and that its author is an artist as well as a master builder, and, therefore, signs his work like other artists. We bring public recognition to the architect in proportion to the merit of his building.

"We let the public know that architecture is not merely a perfunctory performance, but that the authors of good buildings give of their individuality to their work and have produced something to be proud of; we give the architect a dignity in his own eyes that will make him ashamed of mediocre effort.

"Lastly, in an age when mechanical process and organization is submerging the individual and stifling individual expression we preserve to the members of our profession a recognition of individuality that will be an inspiration to better art, better building, and a more unselfish service to their fellow men through the great profession of architecture."

Photo by Moulin

EARLE C. ANTHONY BUILDING, OAKLAND, CALIFORNIA

BERNARD R. MAYBECK, POWERS & AHNDEN, ASSOCIATED ARCHITECTS

GROUND FLOOR PLAN, EARLE C. ANTHONY BUILDING, OAKLAND
BERNARD R. MAYBECK, POWERS & AHNDEN, ASSOCIATED ARCHITECTS

EARLE C. ANTHONY BUILDING, OAKLAND, CALIFORNIA
BERNARD R. MAYBECK, POWERS & AHNDEN, ASSOCIATED ARCHITECTS

GARDEN VIEW, EARLE C. ANTHONY BUILDING, OAKLAND, CALIFORNIA

BERNARD R. MAYBECK, POWERS & AHNDEN, ASSOCIATED ARCHITECTS

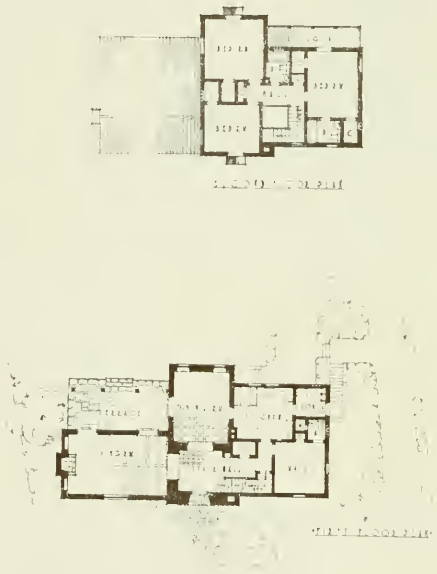
SALES DEPARTMENT, EARLE C. ANTHONY BUILDING, OAKLAND, CALIFORNIA

BERNARD R. MAYBECK, POWERS & AHNDEN, ASSOCIATED ARCHITECTS

Photo by Moulin

HOUSE FOR MR. W. G. GILSON, HILLSBOROUGH OAKS, CALIFORNIA

DODGE A. RIEDY, ARCHITECT



PLAN, HOUSE FOR MR. W. G. GILSON, HILLSBOROUGH OAKS
DODGE A. RIEDY, ARCHITECT

HOUSE FOR MR. W. G. GILSON, HILLSBOROUGH OAKS

DODGE A. RIEDY, ARCHITECT

LIVING ROOM, HOUSE FOR MR. W. G. GILSON, HILLSBOROUGH OAKS
DODGE A. RIEDY, ARCHITECT

PORTFOLIO
of
SKETCHES AND PAINTINGS
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By
Frederick Wilson

PART OF A MURAL PAINTING "LAW," REPRODUCED AS A WINDOW
IN THE PROBATE COURT, CLEVELAND, OHIO

"MUSIC"

SKETCH FOR LEADED GLASS WINDOW BY FREDERICK WILSON

WINDOW IN TRINITY CHURCH, SANTA BARBARA, CALIFORNIA

SKETCH DESIGN BY FREDERICK WILSON FROHMAN & MARTIN, ARCHITECTS

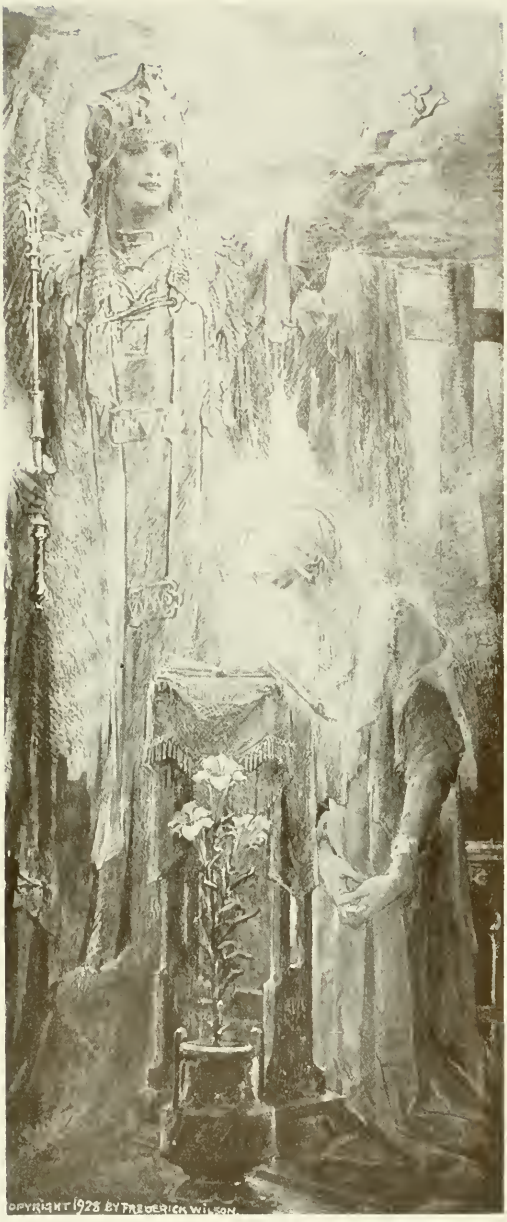
ENGLISH MARTYR'S MEMORIAL WINDOW
SKETCH DESIGN BY FREDERICK WILSON

"THE SOWER"

SKETCH FOR A MURAL BY FREDERICK WILSON

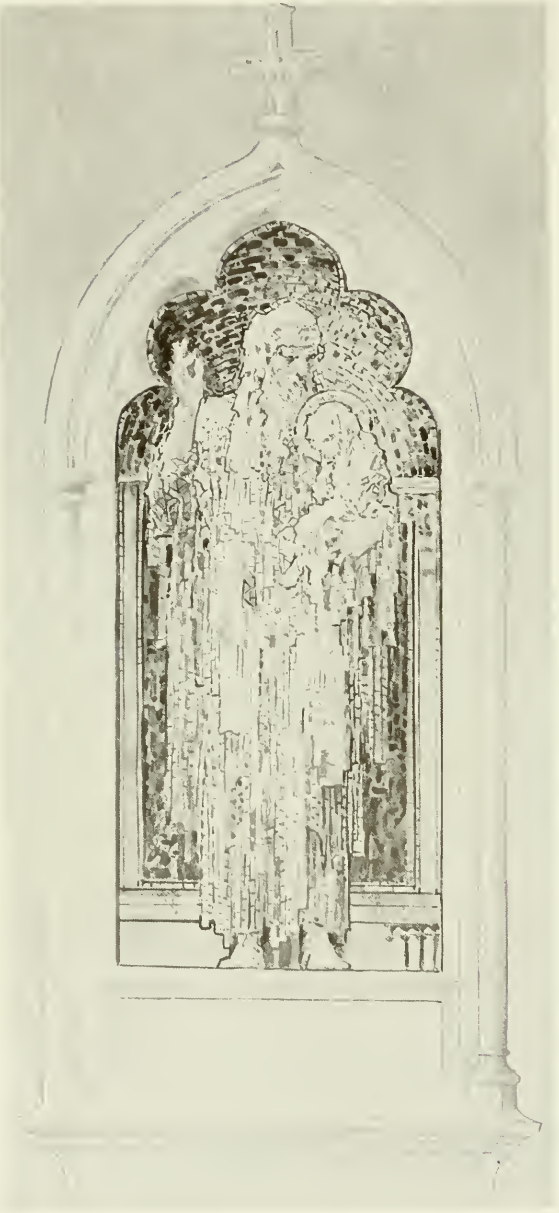
"THE CRUCIFIXION"

AN ARCHAIC TREATMENT IN GRANITE BY FREDERICK WILSON

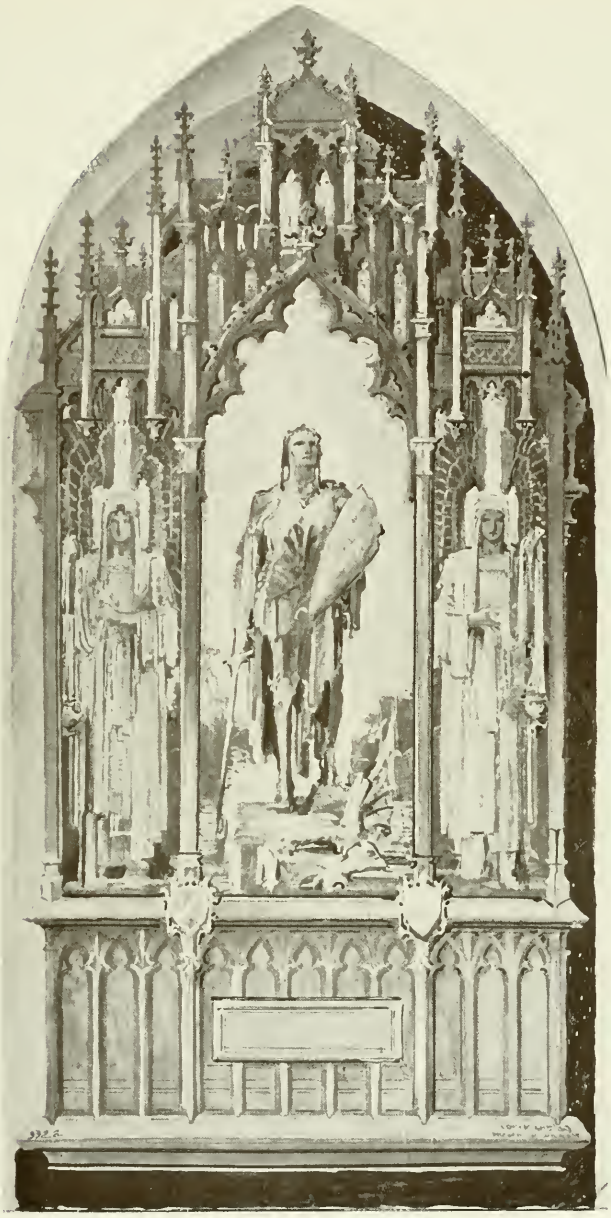


"ANNUNCIATION TO MARY"

DESIGN FOR A MURAL BY FREDERICK WILSON



PRESENTATION OF CHRIST IN THE TEMPLE
FROM A MOSAIC WORKING DRAWING BY FREDERICK WILSON



CARVED REREDOS WITH MOSAIC PANELS

SKETCH BY FREDERICK WILSON

Furnishings by Franks-Child, Inc

FUTURISTIC MIRROR REFLECTING LOUNGE, UNITED ARTISTS THEATER
PORTLAND, OREGON
BENNES & HERZOG, ARCHITECTS

WHAT OF MODERN ART ?

A Breezy Interview with

HARRY S. FRANKS

By: Michael J. Phillips, in the Western Decorator

"WHAT is the trend of Modern Art applied to house furnishings? Certainly we are feeling its influence in decorative work, to a degree that stamps it as being here to stay.

"I've always had a prejudice against Modern Art because it seemed not only so radical, but so violent,—departure from the things which we have known to be sound and artistic and pleasing.

"How do we know these old things were good? Because they have stood the test of one, two or three centuries.

"They were beautiful when they were conceived and they are beautiful yet.

"But the youth of today is going somewhere, in a new direction, headlong as a meteor. I think other decorators, in large measure, feel the way I do.

"There is something in the insistence of youth; something also in the air we breathe, which is dragging us along with it.

"I declared no longer ago than two months, that I'd never willingly execute an Art Moderne order, and here I am, doing one of the biggest in the Northwest.

"If I had had to figure on it, certainly I'd have stuck to my prejudice. But the contract on the United Artists Theater at Park and Washington streets, was awarded our firm without competition.

"The building cost $350,000, and was ready September 15th.

"There were two rooms, I finally admitted, that simply had to be done in Modern Art—and I, who protested so much, did them.

"One is the lounge, 36 by 72 feet, a massive apartment, which is as typical as I can make it. The other is the ladies' rest room, and that is equally up to the minute—or beyond it.

"Will these apartments be effective? Will they be artistic? Will they wear? I don't know; no one can tell.

"The art is too youthful for established standards of comparison.

"As I see it, this Modern Art is an interpretation of the present generation's idea of color, design, and comfort.

"In the pursuit of the object to be attained, this generation sloughs off everything else, and hurls itself headlong at that object.

"Let us say that a chair is to be built. The main requirement is comfort.

"All right, says youth,—which is the spirit of the generation,—what price beauty, or convenience of handling or anything else? It's comfort we want!

"So the chair is made huge and blocky, and perhaps very ugly. But it's comfortable—no doubt about that. The main object is achieved.

"Another characteristic of Art Moderne is a sort of grand impatience.

"For example, take a color scheme in rose and gray. In the past, when we planned this combination, we were always careful to select our particular shade of gray and our particular shade of rose to get just the picture we had in our mind's eye.

"But the tendency today is to pick up a pink, and slam it onto the palette.

"And then to grab a gray, and slam it on the pink or along side of it, or half off and half on, and say: 'There's your pink and there's your gray! That's what you asked for, isn't it?'

"Art Moderne is mainly expressed by

straight lines. The curves are a thing of the past—in a degree, at least.

"We have been taught to think a curve the line of beauty, but we are getting beauty—or something—with straight lines.

"Straight lines, angles, short cuts in life of our youth all point to the inspiration of Art Moderne.

"A girl dresses, snatches up a jazz scarf, which has a pattern in red and white, designed to be folded and worn a certain way.

"She ignores that design. She throws the scarf around her shoulders, one end this way, contrary to the design, and the other back at a different angle, in a brand new design.

"It's not the way or the combination—ever affected before, but it's striking and noticeable.

"She dashes into her car; the gears clash and she is off in a frantic rush, her car lancing in quick angles through traffic.

"She is here a little while, there a little while; always darting; never curving in leisurely fashion.

"Her activities, translated into form and color, suggest unrest, barbaric combinations and broken straight lines and angles."

Mr. Franks has a sound theory as to when and where the decorator ought to come into the picture. And it is a lot earlier than say nine people out of ten call him.

"On many big houses," he declared, "they employ us about as soon as they do the architect.

"We work with the architect on the blueprint, doing a lot of vital things which cost the home-owner nothing.

"We study the plans; see that the windows and doors and the wall spaces are right, and familiarize ourselves with every dimension.

"Sometimes we discover that a certain type of window will not harmonize, and

Furnishings by Franks Child, Inc.

NORTH SIDE OF LOUNGE, UNITED ARTISTS THEATER, PORTLAND, OREGON
Bennes & Herzog, Architects

will interfere with the drapery effect the decorator wants to get.

"So that the owner may be better pleased, we try to persuade the architect to change that particular window. Sometimes we succeed."

He drifted to the discussion of decorative philosophies and trends.

"I think Oregon is generally regarded as more conservative than California. The houses, as a rule, are more substantially built than those in Southern California, anyway.

"There are quite a few Spanish and Italian types, but the English and French provincial seem to have the call.

"An effective modified type with us is a Normandy-French Provincial.

"This combines the ruggedness of the Normandy peasant types of house with the refinements which one may put with propriety into a French Provincial. I planned a home of this modified type and we are very well pleased with it.

"The French Provincial is more popular than the English.

"You can be as elaborate as you like, using silks and satins for drapery. The furniture lines are light rather than heavy.

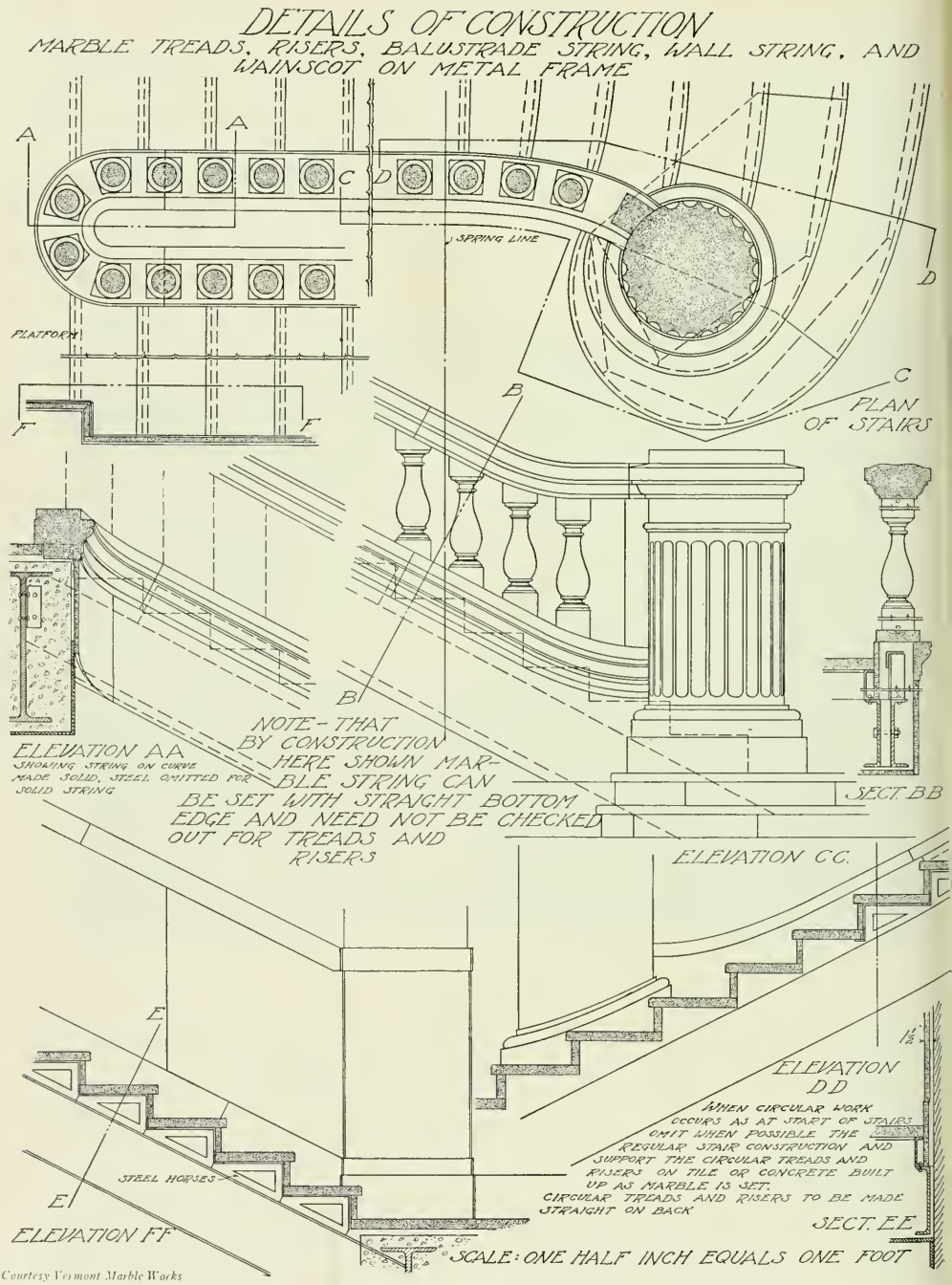
"The Mediterranean is a good type for the more expensive houses. It is a combination of French, Italian and Spanish. You can do almost anything in a decorative way. It makes a pleasing home on that account.

"You can do as much elaborating as you wish. The stucco walls and tile roof give sturdiness and the suggestion of strength.

"I had a great deal of pleasure in doing a Florentine-type villa recently which cost, exclusive of the grounds, about $400,000.

"The owner has a priceless collection of Oriental rugs and Old Masters, and he built the home really as a background for these possessions."

NORTH SIDE OF LOUNGE, UNITED ARTISTS THEATER, PORTLAND, OREGON
Bennes & Herzog, Architects


DETAILS OF CONSTRUCTION
MARBLE TREADS, RISERS, BALUSTRADE STRING, WALL STRING, AND WAINSCOT ON METAL FRAME
A
A
C
D
SPRING LINE
D
PLATFORM
F
F
B
C
PLAN OF STAIRS
B
NOTE - THAT BY CONSTRUCTION HERE SHOWN MARBLE STRING CAN BE SET WITH STRAIGHT BOTTOM EDGE AND NEED NOT BE CHECKED OUT FOR TREADS AND RISERS
ELEVATION AA
SHOWING STRING ON CURVE MADE SOLID, STEEL OMITTED FOR SOLID STRING
SECT. BB
ELEVATION CC.
E
E
STEEL HORSES
ELEVATION FF
ELEVATION DD
WHEN CIRCULAR WORK OCCURS AS AT START OF STAIRS OMIT WHEN POSSIBLE THE REGULAR STAIR CONSTRUCTION AND SUPPORT THE CIRCULAR TREADS AND RISERS ON TILE OR CONCRETE BUILT UP AS MARBLE IS SET. CIRCULAR TREADS AND RISERS TO BE MADE STRAIGHT ON BACK
SECT. EE
SCALE: ONE HALF INCH EQUALS ONE FOOT

Courtesy Vermont Marble Works

DETAILS OF MARBLE STAIRS IN CITY HALL, DALLAS, TEXAS

C. D. HILL & COMPANY, ARCHITECTS

THE SAFETY of MODERN ELEVATORS

By

L. J. Kinnard, Engineer

IN this, the age of tall, towering structures, the problem of vertical transportation has become of almost as great importance as that of horizontal transportation. As in the case of subways and street cars, elevators must primarily be designed for safety.

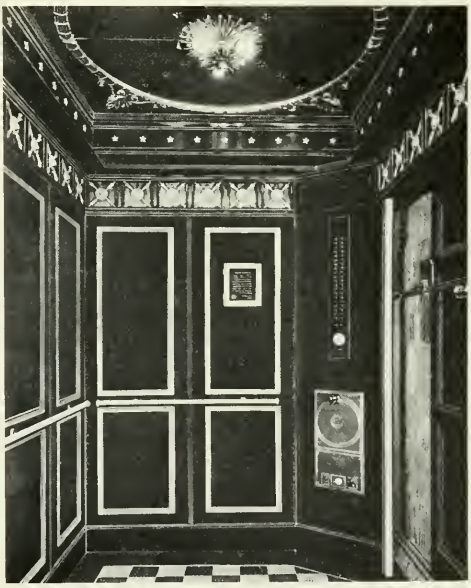
The fear of falling is one of the strongest human instincts, and must be taken into consideration in the operation of elevators. Countless generations have accustomed man to the sensations of horizontal travel; yet many methods of horizontal transportation have been, and still are, exceedingly dangerous. On the other hand, serious accidents to modern elevators are extremely rare.

The question has often been asked: "Why are elevator parts built with factors of safety of 10 or 12, while many parts of automobiles and railway equipment have safety factors of only 4 or 5?" The answer is obvious: People are afraid of elevators.

Therefore, elevators must not only be absolutely safe mechanically, but they must be equipped with every protective device necessary to keep the passengers mentally at ease. Any abrupt or unexpected movement of the car must be prevented, regardless of whether or not it results in a dangerous condition.

It is not within the realm of this article to describe in detail any of the mechanical parts of an elevator. It is of interest to note, however, that most passenger cars have six hoisting cables, any one of which would safely handle the load. The mechanical safety device under the car would easily stop the car with two or three times full load, in case it descended at an excessive speed. Furthermore, there are powerful buffers at the ends of the car travel, capable of bringing the car to a smooth and safe stop in the event of overtravel.

As a final comparison between elevators and other forms of transportation, consider the possibility of collision. An elevator travels in an enclosed hoistway, between guide rails that prevent movement in any except the desired direction, and in a space entirely reserved for that elevator.



A TYPICAL PASSENGER ELEVATOR CAR

Besides these safe mechanical conditions, certain features of control safety have been developed, that not only eliminate dangerous conditions of operation, but also tend to give the passengers a feeling of security.

On high speed elevators operating

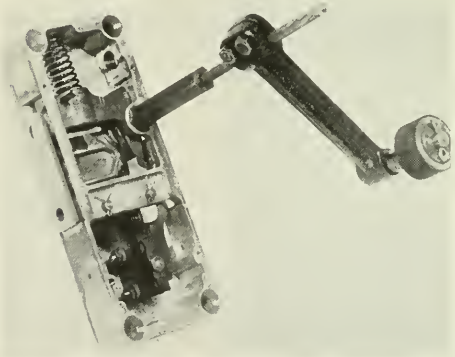
on car switch control, it is a common habit among elevator operators to reverse the car switch from one extreme to the other if they have accidentally passed a floor at which they should have stopped. If the reversal of the car is too abrupt, it is not only uncomfortable for the passengers, but it also puts an unnecessarily severe strain on the equipment. This is prevented in the control by automatically requiring the car to decelerate to a very low speed before the motor is actually reversed, regardless of the position of the car switch handle.

When an elevator descends at an excessive speed the safety sets, locking the car to the rails. When this occurs, the motor should be disconnected immediately. Otherwise the rotating sheave would tend to raise the counter-weight, causing the sheave to slip under the loosened cables and wear them unnecessarily. Therefore, a switch is connected either to the operating mechanism of the governor or to the car safety, which stops the machine and sets the brake even before the safety jaws actually lock the car to the rails. The omission of this governor switch would not introduce any actual hazard as far as the safety of the passengers is concerned, but if the safety jaws set and the machine continued to run, the grinding noise of the cables on the drum and the vibration of the counter-weight might cause a feeling of panic among the passengers.

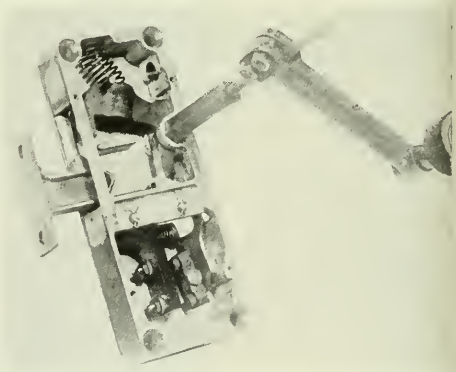
These electrical interlocks simply prevent starting the car unless the corridor doors and the car gate are closed. When a gate interlock is used it also functions to stop the car in case the gate is opened while the car is running. On high speed passenger service it is considered safe to start opening the gate and door while the car is approaching a floor at a very slow speed and is within a few inches of the floor level.

These devices are often called door interlocks, a custom that causes unnecessary confusion in the interpretation of specifications and codes. A door lock, which may be purely mechanical or electro-mechanical, positively latches the door and prevents it from being opened except when the car is either at a standstill *at that floor,* or is within a few inches of the floor and traveling at a very slow speed. It is obvious that door locks are absolutely necessary on any form of push button elevator, in order to prevent the opening of a door from the corridor side unless the car is opposite that door. In some localities the law requires door locks as well as interlocks on car switch elevators. This feature of preventing the car from moving away from a floor until the door is mechanically latched delays the schedule of a car from one-half to two seconds per stop, but the additional safety secured more than compensates for the loss of time.

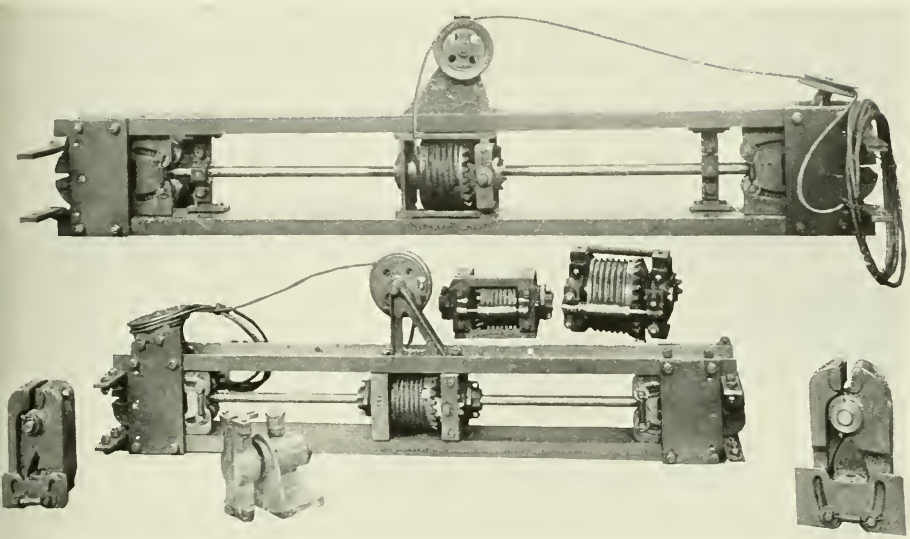
On all modern electric elevators the brake



ELECTRO-MECHANICAL DOOR LOCK, INTERLOCK OPEN AND DOOR HOOK IN POSITION OF ENTERING THE LOCK



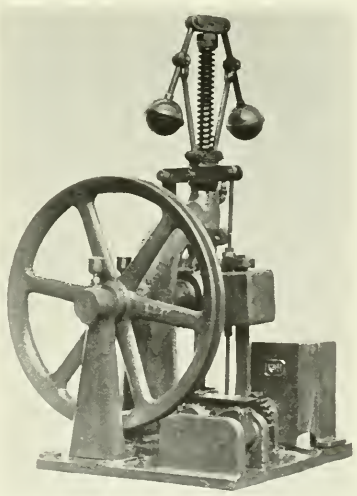
DOOR LOCK IN CLOSED POSITION—IN THIS POSITION DOOR IS FULLY CLOSED AND INTERLOCK IS ALSO CLOSED



CAR SAFETY DEVICE

s always electrically released and spring losed. Since it is good elevator practice to equire two magnetic switches, a directional nd a potential switch—for power to the notor—it is also good practice to require hat both of these switches be closed before he brake is released. This is easily taken are of by the addition of necessary con- acts on the switches. It is obvious that if he brake were released by the action of nly one of these switches, and the other witch failed to function, the car would be ree to drift, a condition that is obviously ndesirable.

In conclusion, it is apparent that most of he dangers against which elevator control rotects passengers and equipment are re- note and unusual conditions. Nevertheless, hese conditions are possible, and elevator xperience has proved that the extra ex- ense of these features is warranted. As in- dicated above, mose people have a subcon- cious fear of elevators, resulting probably rom the fact that an elevator travels in a ertical direction and also because they are nclosed in a small space. It is important, herefore, from the standpoint of safety and psychology that nothing unusual should occur in elevator operation and that every possible condition of danger or apparent danger be guarded against.



ELEVATOR SAFETY GOVERNOR, USED IN CONJUNC- TION WITH THE CAR SAFETY DEVICE

The ARCHITECT'S VIEWPOINT

¶ *The Spirit of the Southwest.*

¶ *An Era of Church Building.*

¶ *The Billboard Nuisance.*

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CALIFORNIA has seen, during the last two decades, one of the most interesting, and, in some ways, most marvelous, building eras in the history of the American nation. This period—and it has not yet seen its end—has been marked by a spirit of freedom, indicating a wonderful opportunity for the architect who understands this coastal country and what its people are, consciously or unconsciously, trying to bring about.

The architect who has settled here from other parts has found out that he has to rearrange his vocabulary of forms and ideas through which he has been in the practice of expressing himself. Where he has not done so, he has failed in making his creations reflect their environment. The spirit of the Southwest has been his judge.

The building of churches has had an important part in this great construction era. They are springing up everywhere. Apparently there is little difficulty found in financing them. Many of them are costly undertakings, running into hundreds of thousands of dollars.

These new church buildings frequently show a spirit of architectural enlightenment on the part of those in charge of their realization which would not have existed thirty years ago. The Catholic foundations—churches, convents, schools—almost invariably reflect something of the glory of their past, a remarkable advancement when one thinks of the pathetic futilities of a very few years ago.

The Protestant denominations have gotten over their fears of expressing spirituality and a teaching doctrine in their structures. Their almost superstitious misgivings that religious expression in their churches inside and out was idolatry, have been swept away. Woe to the architect who tries to foist a plan resembling a baseball diamond upon a church building committee today!

Consider the modern Jewish temple, as exemplified in the new Temple Emanu-El at San Francisco, designed by Messrs. Bakewell and Weihe, a splendid exemplar of the strivings and ideals of the Old Dispensation!

Consider the spiritual teaching of Mr. Allison's Thirteenth Church of Christ, Scientist, in Hollywood, a notable advancement from the cold, detached Christian Science church buildings usually conceived on classic lines, of a generation ago.

This indication of architectural longing on the part of divided religious sects is doing much to bring them into a common understanding as to the reason for their existence. The church in general is saying to the passerby: "This is the House of God."

Church architecture offers a field for the advancement of the allied arts far richer in possibilities than that obtaining in any other class of work—sculpture in stone, wood and metal, decorative painting, metal work, the designing of special textiles, weaving, embroidery and dyeing, ornamental work in plaster, gesso and sgraffito, stained and

eaded glass, even illuminating on parchment, all can and do contribute their part to the onsummation of the perfect thing.

All of these crafts are well represented on the Coast by earnest and skilled workers nd the perfection and excellence of their work is limited only by the compensation al-owed by the church building committee.

On the part of the architect, a working knowledge of all these arts is necessary to he realization of his ideal. He also must be steeped in the history of church architec-ure and have a masterly understanding of symbolism and the "heraldry of religion."

The organ builder already knows his part and the landscape architect can be de-ended upon to contribute that which is appropriate.

An understanding of church architecture is no unimportant element in the general ducation of an architect. A great architectural scholar has said that an architect who an design a church, can design anything. He has learned the lesson of expressing spirit-ıality in his work.

* * * *

IT MAY seem to be a mental jump from one subject to another to turn from the contemplation of spirituality, as expressed in church architecture, to the subject of ighway signboards, but the two are not so far apart as one might think.

The contemplation and enjoyment of natural beauty stimulates spirituality to a con-dition quite akin to that brought about by structures dedicated to religious purposes. There is no really good reason why the beauty of California's countryside and seaside hould be marred and disfigured by distracting and unsightly signboards of any kind. The great cost of these things could be turned into other channels of equal value to the ıdvertisers, even though the billposters did lose a moiety of their business.

The California Highway Commission has recently passed a resolution urging ıdvertisers to co-operate in doing away with this unmitigated nuisance. Apparently here are doubts that the highway signboards could be ligislated out of existence. To he legally untrained, this seems perplexing.

The State has passed laws considering signboards erected on public property as un-desirable, practically and esthetically. If they are objectionable on public property are they not equally objectionable on private property and for the same reasons?

Most legal statutes regarding prohibitions are equally effective where public and private property is concerned. Why should signboards be an exception? Objection may be made that the owner may do as he pleases with his own domain. He may, so long as he does not do that which is injurious to his neighbor.

Somehow a suspicion of cupidity attaches itself to the lessor of land where sign-boards are erected. His financial return is so pitifully small that one wonders why he bothers with the subject at all.

* * * *

THE other day the writer was asked what he thought of architects signing their work. Architects are such a modest and retiring lot that they have probably not thought much about it and when they did, they considered that their creations should speak for themselves. If they are justifiably proud of their work, why should they not sign it? It might be of interest to posterity.

CARLETON MONROE WINSLOW, A. I. A.

The ARCHITECT AND ENGINEER

SINCE 1905

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Vol. 96 FEBRUARY, 1929 No. 2

Professional Ethics

A SACRAMENTO firm of architects was recently awarded a contract to prepare plans and specifications for Legion Memorial Buildings in Red Bluff and Corning. The Supervisors of Tehama County advertised for bids from architects, and seven members of the profession in Sacramento, Oakland and San Francisco responded. The contract was awarded on a bid of 3 per cent of the total cost of each building, the Board agreeing to allow 3 per cent additional for superintendence.

Frederick S. Harrison, architect of Sacramento, submitted a bid of 6 per cent on the actual cost of both structures and accompanied his bid with an opinion, which members of the San Francisco Chapter, A. I. A., have called to our attention, with the reminder that "all of the architects who bid against one another on a basis of price for their services should realize that they are, in the end, depriving themselves of a livelihood in offering to the public services which cannot be worthy of the best traditions of the profession."

Mr. Harrison's comments to the Board of Supervisors follow:

"Professional architectural service is not a commodity which may be bought and sold on a basis of price, as you might buy steel or lumber or cement. No member of your Honorable Board would think of advertising for proposals for surgeons stating the price they would charge for performing an operation with the expressed or implied idea that you would give the job to the lowest bidder. In the same manner, you would not consider asking for bids from attorneys to represent you in a lawsuit. Under such conditions the doctor who would submit a bid would be called a 'quack' and the lawyer a 'shyster.'

"Professional services, whether architectural, or engineering, or medical, or legal, cannot be bought on the basis of price; it must be obtained on the basis of value. That value is represented in the character and integrity, and in the skill and good judgment of the man. Cheap architectural service is costly and invariably its results are poor design, bad construction and contractors are unable to bid intelligently."

Architects and Home Design

STATEMENTS have been widely circulated to the effect that on fully 90 per cent of homes in the United States costing less than $15,000, architects are not employed by the owners. However, comments the *American Contractor*, architects are, as a matter of fact, really responsible for the plans for a great majority of the 90 per cent of houses costing less than $15,000. But these plans do not cost the owners as much as they would cost were the architect employed directly.

A great many plans are drawn by architects and when the houses are erected, the exterior is copied by men who have a knowledge of architectural drafting and thus the influence of the trained architect is felt throughout the land. A few years ago, when architects began to take an interest in the design of medium and low cost houses, an immediate improvement was noticed in the appearance of homes.

News comes from England to the effect that not more than 3 per cent of the medium and low cost homes in England are designed by architects employed directly by owners. In this connection it is interesting to note that there is a great cry in England about ugliness in suburban homes. This has become so great that a book has recently appeared entitled "England and the Octopus" by Clough Williams-Ellis.

Admitting that many homes originally designed by architects are copied by contractors and draftsmen, the question is

ised, Are these copied houses as good as ie originals? Are the materials used the ime as those specified by the architect? Is ie plan as convenient and compact? In the nd is the owner saving money by employ- ig cheap help to copy something his neigh- or paid a professional fee to possess?

Technological Skill Needed

CONCRETE technology is far in advance of the usual forms of concrete pecifications and the standard specifica- ons fail to recognize fully that production f concrete of quality is a manufacturing rocess and that technological skill and cience is one of the first essentials in the nanufacture of concrete as it is in the manu- acture of cement of quality.

On another page in this issue of THE ARCHITECT AND ENGINEER is printed an nteresting article on "Concrete Specifica- ions," by Joseph A. Kitts, Consulting Con- rete Technologist, of San Francisco. Mr. Kitts says that the idea that concrete may e made by a simple formula of proportions r ratio is a great drawback to progress in he knowledge of concrete and in the ad- ancement of concrete as an economical, rustworthy and durable material of con- truction.

The prevailing form of concrete specifi- ation, Mr. Kitts says, offers a bonus to the ement skinning contractor and unfair com- petition to the honest and competent con- ractor with equipment for quality produc- ion. Further, it is of great economic im- portance in the general welfare that the tudent of concrete be encouraged by the prospect that his knowledge will be useful nd valuable. This is not true under the prevailing specifications.

We would not attempt to make cement without the chief chemist, his staff and exact and skilled technological control. The same character of skilled technology is required in the production of concrete and records on more than a million cubic yards of concrete production since 1924 show that it pays dividends in quality and economy.

NOTES & COMMENTS

AS a tribute to the memory and versatility of the late James Osborne Craig, architect of Santa Barbara, a commemorative tile tablet has been placed in the wall of the inner court of El Paseo, a building designed by Mr. Craig but which he never lived to see except in his fancy. The tile is the gift of Mr. and Mrs. Bernard Hoffman, great admirers of Mr. Craig's work, and public-spirited residents who have contributed liberally of their influence and wealth to the new Santa Barbara. It is a fine spirit for the donors to show, and should be an inspiration to those who, in the future, may strive to do something worth while for their communities. The late James Osborne Craig possessed rare talent, combined with a vision and understanding that, had he lived to carry on his work, would undoubtedly have brought him international recognition and fame.

* * *

SAYS a writer in *Building*, published in Sydney, Australia: "It does seem these days that the only way one can get recognition of his works or publicity, is to commit some crime or be a theatrical booster or manager. If it were not for our architectural publications it is doubtful if some architects would ever be heard of.

"In America an architect threatened legal proceedings against a journal for saying his design looked like a mill chimney, which was after all only a matter of opinion; but surely it is better to be noticed even by adverse criticism than to be ignored. Our local Institute might as well not exist for all it does for architects generally."

* * *

WOULD you blame us for feeling good when we read the following letter addressed to the Editor from F. E. Davidson, editor of the *Illinois Society of Architects' Monthly Bulletin*, and prominent member of the profession in Chicago:

"I always look over your editorial matter and must really congratulate you on making THE ARCHITECT AND ENGINEER one of the most readable professional journals in the United States."

IF you think this world is all sugar and molasses just try being editor of an architectural magazine for a few months. A Small House Number in particular.

"How did you like the January issue?" I asked a San Francisco architect who has a nice office on the top floor of one of the city's skyscrapers.

"Good enough," he replied, "but why show so many houses all the time? Why don't you get out a Small Shop Number? I have a couple of shop buildings on the boards right now, and such a number would come in handy."

* * *

Next we meet an architect who specializes in domestic architecture. We are sure he's going to say something complimentary about this House Number.

"Just ordinary stuff," he said, and when Ye Editor pointed out what he thought was a fine example of Spanish architecture, beautifully landscaped and all that, the architect viewed the picture seriously for a moment and then offered the compliment: "Nice tree in front of the house." Can you beat it!

* * *

We greet the distributor of a well-known domestic boiler. He had just finished a hurried examination of the January number.

"Say, you are too prejudiced in the selection of architects whose work you show in your book," he remarked.

"How's that?" the editor asked.

"Well, there is Architect So-and-So. He has them all whipped when it comes to designing a fine home. Yet you have none of his work in this number, nor have I ever seen any of it illustrated in THE ARCHITECT AND ENGINEER.

"But this is a Small House Number and the architect you refer to designs only large houses," rejoined the scribe.

"Well, anyway, you're prejudiced."

"And I suppose this particular architect never uses your boilers in his houses?"

"O, yes he does; he specifies them altogether. He's a good scout."

Prejudice, eh!

Across the Bay we met an architect reputed to "know his onions," to use a homely but none the less forcible expression.

"Most of the houses you illustrated in the last number are good," he went on to say. "I realize it is no easy matter to select a lot of small houses and have them satisfy everybody. If every house pleased everyone the designs would all be the same, and a residence street would lose its interest. I am not so keen for those houses designed by the American Institute Small House Bureau, however. If they are a typical example of what the Bureau is doing I think there is need for a new designer.

"The Farmer house in Berkeley is a lovely thing, although there was a little too much foliage around it. There is a chimney to this house which is a big part of its architecture. You couldn't see it in the picture.

"The scale of one of the other East Bay houses illustrated is not so good."

So we phoned the architect of this particular house later on to ascertain just what he thought of the number.

"A splendid issue. All good stuff. Congratulations." F. W. J.

ART A CIVILIZING INFLUENCE

Art is one of the most civilizing influences in our civilization. No nation has been great unless it had an adequate expression of art. The Mongols swept through the nations but left no trace behind them—they had no arts. On the other hand, Greece and Rome are largely remembered because of their arts. We, in this nation, are just beginning to find ourselves in regard to things artistic.—*Edgar Walter, artist.*

STUCCO HOUSE IN SOUTHERN CALIFORNIA

WITH *the* ARCHITECTS

ARCHITECT'S NARROW ESCAPE

Timothy L. Pflueger of Miller and Pflueger, archi-
cts of the Telephone and other San Francisco build-
gs, recently came into the limelight by being a pas-
nger of a Boeing airplane that was forced down in a
inding blizzard 30 miles from Elko, Nevada, en-
ute to Salt Lake City. Mr. Pflueger was on his way
New York on a business trip. According to his
rtner, he must have had a premonition that all was
t going to be well on the journey, for he prepared
mself with a heavy fur coat and a pair of goloshias,
marking that even though the airplane would be
ated "one can never tell what may happen on a trip
this kind." After the accident, Mr. Pflueger wanted
continue in another plane, but was persuaded to go
train by his brother, Paul Pflueger, who told him
er the telephone that his relatives had done enough
orrying.

INDUSTRIAL BUILDINGS

Plans have been completed in the office of Messrs.
'Brien and Peugh, 315 Montgomery street, San
rancisco, for a two story, Class C industrial building
10th and Jessie streets, San Francisco, for E. D.
wift and for a one story, brick building, part of which
ill be rented as a branch post office, at 21st avenue
nd Taraval street, San Francisco. These architects
ave also prepared plans for a one story warehouse and
les building at 15th and Bryant streets, San Fran-
sco, to be leased to Harron, Rickard & McCone.
t Oakland an industrial building costing $100,000
as been planned by the same architects for the United
Motors Company. These buildings will be constructed
y the Industrial Construction Company.

1929 BUILDING OUTLOOK

That the building program of the United States
uring 1929 will involve $5,000,000,000 in new con-
truction and that more than $400,000,000 will be re-
uired to finance new buildings in our Pacific Coast
ities, is the opinion of Straus Experts who have made
heir annual survey and forecast. All indices affecting
his industry point to a steady, conservative and de-
endable activity throughout the year for producers of
uilding materials, builders, architects, labor, contrac-
ors, and those who finance building operations.

ADDITIONS TO SACRAMENTO SCHOOLS

Messrs. Dean & Dean, California State Life Build-
ing, Sacramento, have been commissioned by the Sac-
ramento Board of Education to prepare plans and
specifications for alterations and additions to six school
buildings, as follows:

Bret Harte School, Franklin boulevard, $35,000; Coloma School, $75,000; Donner School, Stockton boulevard and Eighth avenue, $85,000; El Dorado School, Fifty-third and J streets, $30,000; Newton Booth School, Twenty-sixth and V streets, $35,000; Sierra School Twenty-fourth street and Third avenue, $35,000.

Besides the above, the Sacramento school building program for this year includes a $60,000 building for the Crocker School in the Homeland section for which Starks & Flanders are the architects.

ARCHITECTS GIVEN CERTIFICATES

The following architects have passed examinations and will receive certificates to practice in the State of Washington: Norman B. DeKay, Seattle; Henry H. Waples and Harry C. Weller, Pullman; S. L. Hinman, C. J. Brady, Hugo Osterman, Ivan W. Myer, Theo Damm, Seattle; Oscar G. Woody, Pullman, and Earl S. Smith, Seattle.

Passed by reciprocity: Walter Mellor, Philadelphia, Penn., and F. M. Stokes, of Portland, Ore.

The examining board consists of: Harry H. James, Seattle; George Gove, Tacoma, and Julius A. Zittel, Spokane.

ARCHITECT CLAIMS DAMAGES

Charging breach of contract, William H. Wheeler, architect of San Diego, and William G. Reed, builder, have filed suit against Aimee Semple McPherson, evangelist, for $65,000 damages.

The plaintiffs claimed they entered into a contract with Mrs. McPherson, June 6 last, to furnish plans, finance and construct a $65,000 hotel adjoining Angelus Temple in Los Angeles, for which they were to receive 12 per cent commission. The agreement was later altered, the complaint said, as Mrs. McPherson was to finance the construction and they were to receive 10 per cent for their work.

A WORTH WHILE COMPETITION

In "Musings from Idlewise" in a recent issue of *Your Home Magazine*, the editor finds that a new scheme has been discovered through which prizes are offered to home builders constructing the best houses.

"There is a development company in Dayton, O.," writes this editor, "that has struck a happy note in trying to assure the best possible homes for its property. This organization has offered prizes totaling $5000 for the best homes erected there up to May 1, 1929. This money is divided equally between the architect and the builder of each home receiving an award, and the winners of the prizes are to be determined by a committee of awards made up of an architect, a professor of architecture in a leading university and an authority on building construction.

"In awarding the prizes the committee will take into consideration both the architecture and the construction, 50 points being the maximum for each; 25 of the architectural points will apply to the floor plan and the other 25 to the elevations.

BRUNNIER AGAIN HONORED

H. J. Brunnier, consulting structural engineer of San Francisco, has been elected president of the California State Automobile Association for the second term. Mr. Brunnier has been chairman of the Association's Highways committee for eight years and has done valuable work on that committee. His election to leadership over the 80,000 or more motorists of Northern and Central California, is further evidence of the high esteem in which he is held by his fellow members.

BUSY ARCHITECT MOVES

Douglas Dacre Stone announces the removal of his office from the Builders' Exchange Building, Oakland, to the fourth floor of the Great Western Power Building, Seventeenth and Broadway, Oakland. Mr. Stone has recently been commissioned to prepare plans for several large projects, including a fifteen-story Class A hotel. Louis S. Stone also has transferred his offices to the same building.

ARTHUR G. LINDLEY

Arthur G. Lindley, 67, architect, died at his home in Glendale, January 10th.

Mr. Lindley, a member of the Civil Service Commission of Los Angeles, was stricken suddenly at his office, and succumbed to a second attack of heart disease. He was well known for his work of designing churches and office buildings.

AN AMERICAN PRODUCT

Good architecture must express the life of the people among whom it has originated, Birge M. Clark, architect, told members of the Palo Alto Kiwanis Club at one of its recent luncheons. Colonial architecture, he said, is not the type properly expressive of the life of people in this region. The colonial type, he said though frequently considered American in origin, actually is English. "It has a formality," he said, "characteristic of the early Americans and their social life, but is by no means expressive of the people in the West where the tendency is toward informality."

The so-called Spanish type, which is rising in vogue in California, is not altogether Spanish, he said, but has undergone such modifications that it can properly be styled Californian, though strongly suggestive of its Spanish derivation.

This country's sole contribution in the way of an original architectural style, the speaker said, is the skyscraper, typifying the spirit of our large cities.

PRIZE WINNERS

Dean & Dean, architects of Sacramento, were awarded second prize in class B for the best drawn plans of a modern school building. The prize was offered by the Common Brick Manufacturers' Association of America, and the award was made for a drawing of the Leland Stanford Elementary School in Sacramento.

TO DESIGN SCHOOL BUILDINGS

Davis, Pearce Co., architects of Stockton, have recently been commissioned to prepare plans for three large school buildings as follows:

Willetts Union High School, $115,000; Livermore Union High School, $150,000, and Ukiah Union High School, $150,000.

WAREHOUSE AND OFFICE BUILDING

Plans are being prepared by George W. Kelham, San Francisco, for a ware house and office building in Los Angeles for Hills Brothers, coffee importers. Mr. Kelham is also supervising architect for the new California Club Building, Los Angeles. Robert D. Farquhar is architect.

OAKLAND APARTMENT BUILDING

Plans have been completed by Messrs. Miller and Warnecke of Oakland for a six-story steel and brick apartment building at Lake and Madison streets, Oakland, for Oliver Kehrlein, and estimated to cost $250,000.

PRIX DE ROME COMPETITIONS

In last month's ARCHITECT AND ENGINEER brief mention was made of the American Academy in Rome annual competitions for Fellowships in Architecture, Landscape Architecture, Painting and Sculpture.

In Architecture the William Rutherford Mead Fellowship is to be awarded; in Landscape Architecture the Fellowship is provided by the Garden Club of America Fund; the Fellowship in Sculpture is supported by the Rinehart Scholarship Fund of the Peabody Institute of Baltimore, Md.

The competitions are open to unmarried men, not over 30 years of age, who are citizens of the United States. The stipend of each fellowship is $1500 a year for three years, with allowances of $500 for transportation to and from Rome and $150 to $300 for materials and incidental expenses. Residence and studio are provided at the Academy, and the total estimated value of each fellowship is about $2500 a year.

The Grand Central Art Galleries of New York City will present free membership in the Galleries to the painter and sculptor who win the Rome prize and fulfill the obligations of the fellowship.

In architecture, graduates of accredited schools will be required to have had architectural office experience of six months, and men who are not graduates of such schools may enter the competition if they have had at least four years of architectural office experience and are highly recommended by a Fellow of the American Institute of Architects.

Entries for all competitions will be received until March 1st. Circulars of information and application blanks may be secured by addressing Roscoe Guernsey, Executive Secretary, American Academy in Rome, 101 Park avenue, New York City, N. Y.

HIGHEST HONOR

In connection with the three-day exhibition of the Twenty-first Paris prize drawings in the exhibit rooms of the Architects' Building, Fifth and Figueroa streets, Los Angeles, a dinner was given for the members of the Los Angeles Atelier of the Beaux Arts Institute of Design of America.

The first prize, four years of study at the Ecole des Beaux Arts in Paris, was won by Thomas Locroft of the Catholic University of America. The winning of the Paris prize is the highest honor that can be awarded to an American draftsman. The subject of the competition this year is a Supreme Court Building, facing a large plaza and the head of a great Memorial Bridge. The ideal setting of the structure makes the entire conception one of extreme interest.

PERSONALS

C. K. DENMAN announces the removal of his office from 219 Hollywood Security Bank Building, to Room 619 in the same building, Los Angeles.

The Allied Architects' Association of Los Angeles and EDWIN BERGSTROM, MYRON HUNT, PIERPONT DAVIS, SUMNER P. HUNT and WILLIAM RICHARDS, architects, announce the removal of their general offices from 420 S. Spring street to 1129 Citizens National Bank Building, Los Angeles.

LEON CARYL BROCKWAY and WILLIAM J. STONE have formed a partnership for the practice of architecture, under the firm name of Brockway & Stone. Their office will be at the present location of Mr. Brockway, Rooms 400 to 402 Security Building, Pasadena.

COFFMAN, SAHLBERG & STAFFORD, architects and engineers of Sacramento, announce the removal of their offices from the Plaza Building, to the offices formerly occupied by R. A. Herold, 437 Forum Building, Sacramento.

GEORGE HOWARD, JR., has moved his office from 819 Story Building, Los Angeles, to Suite 206 of the same building.

CHARLES HARRIS, architect,, announces that he is opening an office for the practice of architecture at 343-44 Standard Life Building, Decatur, Illinois, and will be pleased to receive manufacturer's samples and catalogs.

EDGAR WALTER, chairman of the Commonwealth Club's section on Art, Letters and Music, has announced the appointment of IRVING F. MORROW as chairman of the club's subsection on Architecture. He succeeds the late Charles Peter Weeks.

MARK HOPKINS ADDITION

Weeks and Day have been commissioned to prepare plans for a fourteen-story annex to the Mark Hopkins Hotel at Mason and California streets, San Francisco. There will be one hundred and fifty additional rooms, besides an extension to the dining room and double the present garage space.

Weeks and Day are also preparing plans for two additional floors to the Firemen's Fund Building, Sansome street, near California, San Francisco.

BERKELEY SCHOOL ADDITION

The Berkeley Board of Education has commissioned W. H. Ratcliff, Jr., to prepare plans for a $100,000 addition to the Berkeley High School gymnasium. For the time being it will be used for class rooms.

A LANDSCAPE PROBLEM

Stephen Child, the San Francisco landscape architect, finds his Arizona practice increasing interestingly. The latest problem is the subdivision into Villa homesites, 5 to 15 acres in size of one square mile (640 acres) of the very attractive foot-hill land, four miles west of Tucson, adjacent to the land of the Carnegie Desert Laboratory, an organization sponsored by the Carnegie Institute of Washington, D. C., to make careful investigations of all sorts of desert plant life.

BERKELEY APARTMENT HOUSE

John I. Easterly of Oakland has completed plans for a four story and basement steel frame and concrete store and apartment building to be erected on University avenue, Berkeley, for R. N. Payne. There will be forty-three apartments. The estimated cost is $125,000. Mr. Easterly has also completed plans for the new Highland School addition, Oakland, estimated to cost $50,000.

SANTA MARIA HOTEL

Plans are being prepared in the office of William H. Weeks, Hunter-Dulin Building, San Francisco, for a $200,000 hotel to be built on the State Highway, opposite the Santa Maria Inn, Santa Maria, for Mrs. Leon P. Haslam. There will be 108 rooms and baths, large lobby, dining room, etc. The hotel will cater to the automobile tourist travel.

STOCK BROKERAGE OFFICES

Messrs. Kent and Haas, architects in the Underwood Building, San Francisco, have been very busy the past three months designing offices for different stock brokerage firms in San Francisco, Oakland, Los Angeles, Portland and Seattle. They are now at work on plans for elaborate offices in Seattle for the E. A. Pearce Company.

MECHANICAL ENGINEERS BUSY

Messrs. Hunter and Hudson, mechanical engineers of San Francisco and Los Angeles, are busy on several important commissions, including the new California Club Building, Los Angeles; Southern California Edison Building, Los Angeles; Life Sciences Building, Berkeley, and the Shell Oil Building, San Francisco.

ADDITION TO VICTORIA HOTEL

A new wing is to be built to the Empress Hotel, Victoria, B. C., to cost $2,500,000, the architecture of the present building to be carried out in the new one. There will be 270 rooms with baths.

FOR GOOD OF CALIFORNIA

George Douglas recently spoke before the sub-section on Literature of the Commonwealth Club in favor of a concerted movement of the art, music and letters features of the Olympic meet taking place in San Francisco simultaneously with the holding of the games in Los Angeles in 1932. "Let us be frank about this matter," said Mr. Douglas. "They get up early in Los Angeles—so early in fact they seem to get up just about the time that some of us are going to bed. They caught the rest of California napping when getting the game that we might have obtained. Well, good luck to them, for it is all for the good of California. But again they caught the rest of California napping when it came to getting a bond issue of $1,000,000 from the taxpayers of the state to make it a success. Had San Francisco been wider awake she might have stipulated for at least the art, music and letters features of the forthcoming games before voting that money. Northern and Central California having voted to contribute half the money might have asked for at least a small portion of the contests. However, it is still possible that Los Angeles may listen to such a proposition if presented in the light of a co-operative advertising plan. By giving us the art contests for San Francisco we would be able to help with publicity and to that end the Art, Letters and Music Section of the Club is conducting negotiations."

OAKLAND ARCHITECT BUSY

Hugh C. White, Syndicate Building, Oakland, has considerable new work in his office, including a warehouse for the Lyon Storage Company, Berkeley; alterations to a two-story, Class C office building on Broadway, Oakland, and a one story building on Thirteenth street, Oakland.

SAN FRANCISCO SCHOOL BUILDING

A group of Junior high school buildings for the Park Presidio district, San Francisco, is being designed in the office of William H. Crim, Jr., 425 Kearny street, San Francisco. There is an appropriation of $800,000 for the work.

20-STORY CLUB BUILDING

Sherwin D. Ford, architect in the Lyon Building, Seattle, is preparing plans for a twenty-story Class A building for the Washington Athletic Club, to be built at 6th and Union streets, Seattle, at a cost of $2,000,000.

SOCIETY and CLUB MEETINGS

NORTHERN CALIFORNIA CHAPTER

The regular meeting of the Northern California apter, A. I. A., was held at the Mark Hopkins hotel January 29th at 6:30 p. m. The meeting was called order by President Allen.

Guests present were: Messrs. Lewis F. Byington, . I. Zook and Harry Perry.

Mr. Evers reported on the proposed licensing acts engineers, and discussed the various phases of the ovisions contained therein.

Upon motion of Mr. Garren, it was unanimously ed to endorse the proposed Senate Bill 177, regu- ng the practice of architecture.

Mr. Zook, Chairman of the Industrial Committee the Down Town Association, spoke on industrial ditions in San Francisco, and urged that architects lude in their specifications the use of articles manu- tured in San Francisco and environs, as an aid in ucing new manufacturing firms to locate here. The tter was referred to the directors for further study, er which it will be brought to the attention of the l Chapter membership.

Lewis F. Byington was the principal speaker of the ning and addressed the Chapter on the work of the tive Sons of the Golden West in marking and re- ring early-day landmarks and historic monuments. Ernest Coxhead followed Mr. Byington with a talk the remaining landmarks about the Presidio, with ticular reference to Fort Winfield Scott.

Upon motion of Mr. Myer, it was voted that a mmittee of the Chapter be appointed to confer with Historic Landmarks Committee of the Native ns, to procure the restoration of Fort Scott and re it dedicated as a public monument.

Harry Perry delighted the members with several sical selections.

OUTHERN CALIFORNIA CHAPTER, A. I. A.

Reading of annual reports and installation of officers tured the first meeting of the new year of the uthern California Chapter of American Institute of chitects, held at the University Club, January 8th.

The officers installed were: President, Pierpont vis; vice-president, Edgar H. Cline; secretary, A. S. becker, Jr.; treasurer, Ralph C. Flewelling.

Frank C. Baldwin of Washington, D. C., secretary the American Institute of Architects, addressed the eting on the activities of the national body.

Edwin Bergstrom, treasurer of the American Institute of Architects, who recently returned from a meeting of the board of directors in Florida, outlined the work done at that meeting. Enlargement of the membership of the national body was of utmost importance, Mr. Bergstrom stated, as the directors have adopted a budget to cover a three-year period, and in order to carry that budget to a successful close it will be necessary to build up the membership in each chapter. A new building is planned in Washington, D. C., for headquarters.

Myron Hunt, director of the ninth regional district of the American Institute of Architects, told of the vast amount of work done by the directors in their meetings and urged that the Southern California Chapter change their date of election of officers to coincide with that of the national body to simplify the handling of business by committee members. Mr. Hunt also told of his impressions of Florida.

Sumner Spaulding, chairman of the educational committee of the local Chapter, presented the prize donated by the Chapter to the winner of the scholarship at the University of Southern California, Thomas Muldin. Mr. Muldin also last year won the traveling scholarship.

President Pierpont Davis presented a report on the activities of the Chapter, during the past year, as carried on by the Standing committees.

WASHINGTON STATE CHAPTER

The annual meeting of the Washington Chapter, American Institute of Architects, was held at the Olympic Hotel, January 26th.

The session was devoted to technical discussion, reports of committees and election of officers. A banquet concluded the day's events, the members of the Seattle Chapter furnishing the entertainment. Sherwood D. Ford acted as toastmaster.

WASHINGTON STATE SOCIETY

The annual meeting and banquet of the Washington State Society of Architects was held December 6th at the Hotel Gowman, Seattle. The regular election of officers resulted as follows: President, William J. Jones; first vice-president, R. C. Stanley, Seattle; second vice-president, Julius A. Zittel, Spokane; third

vice-president, Stanley A. Smith, Pullman; fourth vice-president, Martin Klein, Centralia; secretary, O. F. Nelson, Seattle; treasurer, H. G. Hammond, Seattle; trustee '32, Harry H. James, Seattle.

ARCHITECTS' LEAGUE OF HOLLYWOOD

That they may render a service to their fellow architects, the Architects' League of Hollywood are starting a very worth-while work which could well be copied by other architectural organizations throughout the United States. They have formulated a committee to assemble and tabulate the costs of various types of buildings erected in Southern California. They propose to use the data in the following manner:

Their members will send in the cost of various buildings, reducing these to a cost per square foot and a cost per cubic foot. Each building will have a brief description as to its general specifications. The League then proposes to have these printed at periodic intervals and sent to the various architects comprising the League and any others who may be interested. They will probably make a nominal charge for these to cover the actual expense of having them printed. It is not easy to get authentic cost data on various types of buildings and the Architects' League of Hollywood feel that the architect assumes an ethical and business obligation to guide his client correctly in giving him reliable preliminary figures on his building.

The fact that architects are not always as careful as they should be in giving out preliminary data gets many of them into serious difficulties and has been a reflection on the practice of the profession in general. It is a keen pleasure for an architect to have his clients tell their friends that in addition to planning well arranged and practical buildings, which are artistic in their appearance, that the architect has the ability to handle his business obligations with effectiveness and efficiency.

One architect, we are informed, wrote to the League that the cost data embodied in the booklet "The Architect's Cost and Profit," would have been of tremendous financial value to him had he possessed it twenty years ago when he started his profession. He said in substance: "If then I had the knowledge of how to figure my overhead, which is so clearly set forth in this wonderful booklet, I would, without question, have been worth $150,000 more than I am today." This is fairly typical of the expressions of gratitude that have been received by the League for the work they have done.

The above information was furnished by the League's corresponding secretary, Charles Kyson, who adds this note to the Editor, the terms of which are agreed to:

"I wanted particularly for you to know of this new activity of the Architects' League of Hollywood, because it occurred to me that the results of this investigation could be published from time to time in The Architect and Engineer. Unquestionably this data showing the cost of various types of buildings will be very helpful to the architects all up and down the Pacific Coast."

* * *

The League is planning to hold a smoker one evening each month at the California Art Club. Standing committees for the year 1929 are announced by President Ralph Flewelling as follows:

Ethics and practice committee—John Roth, chairman; M. L. Barker.

Public relations—John Roth, chairman; H. L. Gogerty, M. L. Barker.

Publication—V. B. McClurg, chairman; Walter H. Parker, Harold W. Miles, Charles Kyson (ex-officio).

Publicity — Charles Kyson, chairman; Vincent Palmer, Cumberland D. Bush.

Meeting and entertainment—Edwin D. Martin, chairman; Nathan Coleman, C. W. Hodge.

Associated societies—M. L. Barker, chairman; Conrad Buff, Rolf R. Newman, Horatio Bishop, (ex-officio).

Finance committee—Ellet Parcher, chairman; Rolf Newman, Horatio Bishop.

Allied arts and crafts—Conrad Buff, chairman; M. L. Barker, Alfred Weidler, Johannes C. Arensma.

Small house committee—Chas. Kyson, chairman; Nathan Coleman, V. B. McClurg.

Membership committee—Rolf R. Newman, chairman; Edwin D. Martin, Walter H. Parker, Vincent Palmer, Don Uhl.

Unit cost committee—Walter H. Parker, chairman; Vincent Palmer, V. B. McClurg.

Materials and production—C. W. Hodge, chairman; James T. Handley, H. L. Gogerty, L. G. Scherer.

OAKLAND VEHICULAR TUNNEL

Geo. A. Posey, county surveyor of Alameda County, has started surveys for the proposed Broadway tunnel project, which will include an improved roadway from Oakland into Walnut Creek and linking that section with Stockton and other San Joaquin Valley points. The project will cost $1,500,000 and will be financed by a Joint Highway District in Alameda and Contra Costa Counties. State aid will also be available.

$1,000,000 CONSTRUCTION CONTRACT

Thebo, Starr and Anderton, Incorporated, whose head office is in San Francisco, recently has been awarded a construction contract in Havana, Cuba, amounting to over one million dollars. The firm's activities now range from Japan to Cuba and from Alaska to Central America, and include many diverse types of construction and engineering.

L. A. ARCHITECTURAL CLUB

The regular January meeting of the Los Angeles Architectural Club attracted sixty-four members and guests. The dinner was held on the 15th at the Artland Club.

Election of officers comprised the chief business of the meeting. A motion was made, by the nominating committee, to re-elect all old officers so as not to interrupt the important Club business which is under way. These officers are: George P. Hales, president; John R. Jarvis, vice-president; Kemper Nomland, treasurer; C. K. Hazen, secretary; Julian Garnsey, H. O. Sexsmith and H. Roy Kelley, directors.

The evening's program consisted of the presentation of two motion picture films. The first, shown through the courtesy of the Reading Iron Works of Reading, Pa., was devoted entirely to the manufacture of wrought iron pipe, explaining the processes used in its manufacture by Reading. The second, presented by Mr. Calahan, of the Associated General Contractors, was a remarkable depiction of the St. Francis dam catastrophe. There were three reels showing the destruction wrought in the Santa Clara Valley, and the restoration work done by the Associated General Contractors.

* * *

The Club is now publishing a monthly bulletin for its members, which contains not only news of its activities, but architectural notes of general interest. Work for the new year promises to be much more extensive and a number of new committees have been appointed to help carry on the program. These are: Entertainment Committee comprising F. B. Nightingale, Edward Mussa and H. G. Villa; Membership Committee, Vinton Greening, Edward Held and J. R. Wyatt; Publication Committee, Conrad Buff and Jack Cosello; and the Speakers Committee, R. N. Burnham, H. Roy Kelley and G. H. Schulte.

OREGON CHAPTER, A. I. A.

The annual meeting of Oregon Chapter, A. I. A., was held in Portland in January and reports of committees indicated that 1928 was one of the outstanding years in the Chapter's history.

The members were active in the matter of the location of the federal building, active in assisting in plans for the proposed state capital group at Salem, active in the matter of Portland west side waterfront development, and also in the matter of the state building code now before the legislature. The report of Jamieson Parker, Chapter president, listed each accomplishment briefly.

The year 1929 will mean continuance of the waterfront development scheme—a plan that is already winning approval of property owners in the district, it was declared by some Chapter members—to as early as possible fruition; will mean greater development of the capitol group plan; will see the start of a movement to bring about beautification of highways and travel arteries by better construction of roadside stores, and other things.

The Chapter, by resolution, supported the action of the Oregon building congress in its efforts to obtain appointment of a state housing code commission, which would investigate conditions and report to the ligislature two years from now.

The Chapter practically re-elected its entire corps of officers: President, Jamieson Parker; vice-president, Harold W. Doty; secretary, Fred Aandahl; treasurer, Walter E. Church. A. Glenn Stanton was elected trustee to succeed John V. Bennes, retired. Holdover trustees are Ormand R. Bean and Joseph Jacobberger.

C. H. Wallwork and Mr. Bean were elected to represent the Chapter on the Oregon technical council.

The Chapter is planning an exhibition late in April of drawings by various local architects, samples of wood carvings, light fixtures, wrought iron work and other examples of handicraft, said Mr. Stanton, chairman of the exhibition committee.

W. G. Purcell discussed the small house movement sponsored by the national association and commended it highly. It has proven responsible for the erection of thousands of architecturally-sound dwelling houses in the United States, he said.

A dinner followed the meeting which was held at the University club.

STEEL INSTITUTE CODE

A clarification of selling practices not alone for the purpose of eliminating unfair competition between members of the industry, but also for the purpose of protecting the public against extortion, was advocated by Charles F. Abbott, of New York, Executive Director of the American Institute of Steel Construction, in an address before the convention of the Iron, Steel and Allied Industries of California, at Del Monte. Mr. Abbott explained to his auditors that the steel fabricators of the United States and Canada are now considering the advisability of drafting a code of selling practices which will be filed with the Federal Trade Commission as an evidence of what constitutes unfair trade practices.

"Our Code of Standard Selling Practice," said Mr. Abbott, "will establish principles that should be observed (1) by the producing mills and the members of the Institute; (2) by members when in competition with one another; (3) by members and those representing the buying interests, including architects, engineers, owners and the general public. In each instance the code will encourage the minimum requirements for fair competition and honorable dealing.

"To retain the full benefits arising from unhampered initiative and avoid the uncertain handicaps arising from regulatory legislation, individuals must cooperatively accept responsibility for fair and intelligent business procedure within their industry. It is not a question of law or a knowledge of legal procedure, but instead it calls for courage to apply fair and intelligent business methods and to reject those that are unfair and ineffectual.

"The structural steel industry, through the Institute, recognizes the fundamental conception of right methods to be expressed in a Code of Standard Selling Practice in order that the industry may constantly protect its position in the industrial world. No matter how sincerely the acceptance of principle may be, that does not, by itself, assure their practical application in the daily transaction of business. Varying interpretations are made by individuals and unless the basic principle is sincerely accepted by all, then the rule fails in practical application. In that event expectation of constructive progress is at the mercy of individual option. There would be lacking any organized co-ordinated acceptance of principles.

"The Institute believes that a Code of Standard Selling Practice, to be effective, must be explicit and the rules must cover all anticipated eventualities. Nearly every member of the Institute recognizes the need of constructive measures to control its business procedure."

COMMON BRICK SERVICE BUREAU

John V. Simons, president of the Standard Brick Company of Los Angeles, has been elected president of the Los Angeles Brick Exchange and the Common Brick Service Bureau for the coming year. The other new officers are: vice-president, O. J. Crook of the Compton Brick and Tile Company; secretary, Harry Havner of the Long Beach Brick Company; and treasurer, M. A. Kurstin of the Moneta Brick Company.

The Los Angeles Brick Exchange includes in its membership fifteen of the leading manufacturers of common brick in Los Angeles County. Reports on association activities during the year 1928 show a marked increase in the use of common brick, particularly in the field of residence construction.

The brick manufacturers' service to the public now includes free consultation and advice on all building projects involving the use of common brick. The bureau offices are in the Los Angeles Chamber of Commerce Building.

NEW HAND-MADE TILE

In this issue N. Clark & Sons, San Francisco and Los Angeles, announce their new "Toledo" hand-made roofing tile. It is claimed to be of exceptional strength and beauty and obtainable in a relatively smooth or very rugged texture, as desired. A number of fine roofs have already been contracted for and "Toledo" tile will be seen soon upon the Boys' Dormitory at the California State School for the Blind at Berkeley, the Atherton town hall and a number of fine homes on both sides of the Bay.

N. Clark & Sons also have a new catalog of roofing tiles about to come from the press. This booklet will supplement their Ramona Tile catalog and will show the new "Toledo" hand-made, "Alameda" Pan, "Farnese" Italian and "Spanish" shapes. It will be forwarded to those interested, upon request.

FOR IMPROVED CONDITIONS

Tightening up of credit for building materials furnished to contractors whose financial rating is questionable, has been agreed upon by the members of the Building Material Dealers' Association of Northern California.

In a resolution adopted by the Association the dealers agreed that, before delivering any material to contractors whose credit is not secure, an order on the building and loan association, bank or individual having a first mortgage on the building under construction, or cash in advance would be demanded.

DISCLAIMS CREDIT

In the December number of The Architect and Engineer, several interiors of modern furniture were shown in connection with an article by Rudolph Schaeffer, reprinted from the *California Monthly*. The furniture shown in the picture on page 48 was credited to the Kem Weber Studio of Los Angeles. The caption should have been printed under the photograph on page 49. H. P. Weidman of the Kem Weber Studios writes that his firm does not wish to be credited with having designed furniture like that shown on page 48.

TRAVELING SCHOLARSHIPS

The American Society of Arts and Sciences has decided to found three valuable traveling scholarships in architecture—one for an American student to study European architecture, one for a French student to study American architecture, and one for an English student to study American architecture.

This last scholarship, which might have been thrown open to all English architects, has been given to the Liverpool School, says a writer in one of the English papers. Continuing this writer says: "It is of the value of £300 a year, and, as a seat is to be found in an American office for the holder for four months of the time he is in America, when he will receive a salary, the value is really greater. For the remaining two months he is to travel, and after his visit it is a condition that he write a thesis on some recent development of American architecture. These theses will in time, it is thought, make a valuable historical record of the progress of the art in which America has learnt best to express herself.

"A result of this over a period of years is not only that the Liverpool School has become well known on the other side, but that many good American methods of construction and design have thereby been introduced into this country. American architects have indeed, supported the scheme as some return for their dependence in earlier days on the old country for ideas.

"It should be noted that this new scholarship, which is now the most valuable architectural scholarship in the country, follows the stream of fellowships, studentships, and scholarships which America has of recent years been pouring into this country. No doubt Cecil Rhodes set the example in this sort of thing, but it has been followed by America on the most lavish scale.

"The first Liverpool holder of the new scholarship is to be in New York by April 24th next, when the American and French scholars will be present and the scholarships announced at a public dinner. The dinner is the occasion when the Society of Arts and Sciences gives the medals for painting and sculpture and all the arts and crafts which it awards throughout America."

PARTNERSHIP DISSOLVED

The partnership of Traver and Jacobs, architects, has been dissolved, the firm having completed certain work in which they were mutually interested.

Mr. Traver will continue practicing under the name of Harrison B. Traver, architect, with offices at 1008 West 6th street, Los Angeles.

DECORATIVE ARTS EXHIBITION

The second exhibition of Decorative Arts, sponsored by the San Francisco Society of Women Artists and the Women's City Club will be held in the auditorium of the Women's City Club, 465 Post street, from February 25th to March 10th, inclusive.

The San Francisco art colony is bending every effort to make this exhibition a success, and the studios about the bay region present a most enthusiastic spectacle as new and beautiful objects in all departments of the Decorative Arts are being dreamed of and brought into existence.

The sponsors of the exhibition are convinced that there exists in our own locale talent of the highest order, and feel that the work to be presented will rank artistically with similar showings in the Decorative Arts being held in Europe and throughout the large eastern cities.

The interest of the San Francisco Chapter of the American Institute of Architects (through their representative Henry Gutterson) and the co-operation of the Retail Dry Goods Association will help to introduce to the general public of San Francisco the work of the many creators of beauty who live in their midst. It is hoped that this will direct the attention of buyers, decorators and housewives to the fact that it is not necessary to travel east or abroad in order to obtain furnishings of the highest order.

The exhibition will comprise designs and objects in furniture, textiles, ceramics, sculpture, pesco, arrangements for modern closet, for shop windows, for gardens and in all fields of decoration in its many branches.

DRAWN METALS CATALOG

Zouri Drawn Metals Company have just issued a splendidly arranged catalog, A. I. A. File 26-B-1, showing their latest products in extruded, cast and wrought bronze, and in solid rolled bronze or copper.

Interesting photographs, details and a set of scale plans in a separate folder enclosed at the back, make up this well thought out brochure. It may be obtained by communicating with Zouri Drawn Metals Company, Chicago Heights, Illinois.

BRICK APARTMENT HOUSE

At Pacific avenue and Clay street, San Francisco, a six-story steel frame and brick apartment building is to be constructed from plans by Irvine and Ebbetts, Call Building, San Francisco, at a cost of $150,000.

THE SIGNBOARD MENACE

The following resolution was passed by the California Highway Commission at its November meeting in Sacramento:

WHEREAS, Advertising signs and billboards in proximity to the public highways destroy the scenic value and, in many places, particularly on curves, menace the safety of such thoroughfares; and,

WHEREAS, The California Highway Commission has, by constant vigilance, prevented the placing of advertising signs and billboards within the right-of-way limits of the state highways, but no law has yet been enacted in California which effectively suppresses the erection of advertising signs and billboards on private property outside the boundary of and adjacent to the public highways; and,

WHEREAS, The Commission is of the opinion that outdoor advertisers are proceeding under a misconception of the economic benefits to them of a system which is rapidly defacing the famed landscapes of California and seriously detracting from the enjoyment of its citizens and its tourists:

Be it Resolved, That the Commission, on behalf of the Department of Public Works of the State of California, earnestly urges all concerns, such as oil, automobile and tire companies, banks, hotels, safes and business enterprises of all kinds to remove their signs from private property bordering on the public highways, and co-operate with the public authorities to the end that the natural beauty of California may be preserved and the public highways may be the mediums through which such beauty may be observed; and,

Be It Further Resolved, That civic organizations throughout the state be encouraged to join in a campaign to induce outdoor advertisers in their respective communities to discontinue the present practices which are becoming so increasingly objectionable to the public at large.

NEW INTENTION-TO-BUILD LAW

Following is a copy of Assemblyman Frank McGinley's Bill now pending in the California State Legislature and known as the Morin "Declaration of Intention to Build" Act:

Prior to or immediately following the beginning, upon real property, as hereinafter provided, of any work or construction, alteration, addition to or repair, either in whole or in part of any building, wharf, bridge, ditch, flume, acqueduct, well, tunnel, fence, machinery, railroad, wagon road, or other structure under such circumstances, that a right of mechanic's lien might arise in favor of persons who furnished labor and materials or labor or materials contributing thereto, and not more than ten days immediately prior to said beginning, or within five days after the beginning thereof, there shall be recorded in the office of the county recorded of the county wherein said real property is situate, a notice in writing duly verified upon the oath of the owner or some other person acting for and on behalf of the owner and with his authority, having knowledge of the facts, which notice shall be called a notice of intention to build; said notice shall be in writing, shall contain a legal description of the property upon which it is proposed to erect said improvement sufficient for the ready identification thereof, the name and address of the owner or owners thereof, and the nature of the so-called owner's title, whether the same be in fee or held under contract or otherwise; the cost of said proposed improvement; also the names and addresses of all persons holding encumbrances against said property and the amount and nature thereof, and also a statement as to whether or not the amounts represented by the obligations referred to in said encumbrances have been advanced or not, and if not, in general terms the conditions under which said advances are to be made. No owner or holder of any encumbrance against said property, representing an advance or an obligation to advance monies or other consideration for the construction of any improvement upon the property described therein, nor any owner or holder of any encumbrance who shall by virtue thereof make any advance during the construction of any improvement thereon shall enjoy priority over any mechanic's liens that may arise by reason of said improvement, regardless of the recording of said encumbrance prior to the beginning of said work or improvement, unless said Notice of Intention to Build shall be recorded, as herein provided. Nothing herein contained shall be deemed to require the recording of any notice of intention to build in the case of work initiated under the authority of the state or any county, city and county, city or other political subdivision whatsoever, nor shall anything herein be deemed to affect work or improvements upon the operative property of a corporation under the regulation of the state railroad commission, nor in the case of any work or improvement wherein the entire project shall involve or incur an expense or outlay or obligation of a total less than five hundred dollars. A verified statement executed by or on behalf of the owner of any improvement herein referred to which shall identify any Notice of Intention heretofore recorded, and shall aver that such project was abandoned before the beginning of the furnishing of any labor or materials, shall be deemed prima facie evidence to terminate any record of the notice of said proposed project.

J. W. MORIN.

A BIG NUMBER IN MARCH

Here are some of the good things readers of *The* ARCHITECT *and* ENGINEER may look forward to next month:

WM. I. GARREN writes about the Modernist Type.

Some more lovely sketches "The Playful Side of Architecture."

Frederick H. Reimer's much discussed Building in Oakland.

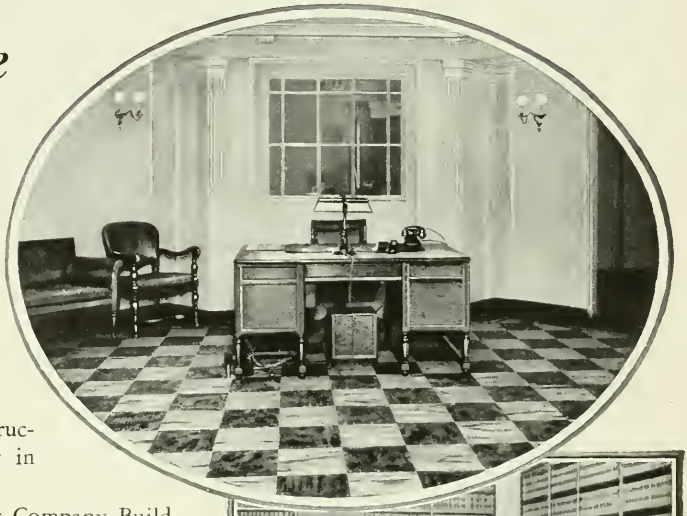
CHAS. H. ALDEN, F. A. I. A., writes about Seattle's new Municipal Auditorium. (Plates and Plans)

The New O'Connor-Moffatt Department Store Building, San Francisco. Lewis P. Hobart, Architect.

Some Warehouses and other Recent Work of F. Eugene Barton, Architect, San Francisco.

Fresco Painting on Fresh Plaster Described by S. Pelenc (Illustrated with some of the Artist's recent work)

BONDED FLOORS IN THE *Equitable Trust Building*



IN 1927, the Hotel Savoy-Plaza was selected by Building Investment Magazine as the outstanding construction achievement of the year in New York City.

In 1928, the Equitable Trust Company Building wins the Award of Merit by this leading authority on building construction and maintenance.

Both buildings enjoy the quiet comfort, the economy and the lasting durability of Bonded Floors.

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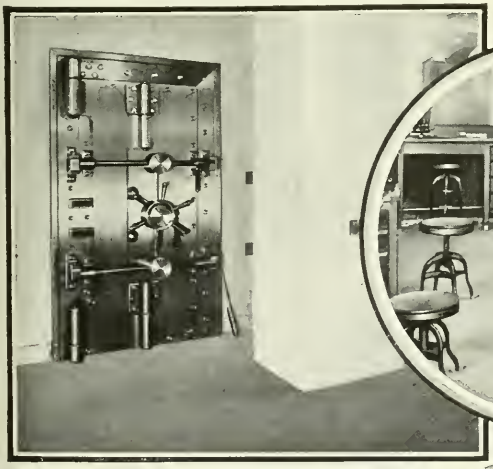

Above: Battleship Linoleum in library of Jerome & Rand, Counselors at Law.

Top: Marble-ized Cork-Composition Tile in reception room, Murray, Aldrich & Roberts, Counselors at Law.

Left: Bonded Floor of Battleship Linoleum in working spaces of Equitable Trust Co.

Extreme left: Bonded Floor of Battleship Linoleum in vaults of Equitable Trust Co.

THE EQUITABLE TRUST BUILDING

Architects: Trowbridge & Livingston; *Contractors:* Thompson Starrett Co. 23,000 sq. yds. Battleship Linoleum, 2,700 sq. yds. Jaspé Linoleum and Jaspé "plank" floor, 18,000 sq. ft. Cork-Composition Tile were installed by Bonded Floors Co.

BONDED FLOORS

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SMALL HOUSE COMPETITION

Announcement is made of an architectural competition for small house design for which the prize money amounting to $27,500 will be awarded. One competition will be held in twelve regional districts of the United States and the national entries will be the winning designs of these districts. The winning designs in each of the regional districts will actually be constructed.

Raymond Hood, of New York and Chicago, internationally known as one of the leading architects of this country and a prominent member of the American Institute of Architects, will be chairman of the National Committee of Arrangements as well as Chairman of the Jury of Award of the competition.

C. Stanley Taylor has been retained as consultant in the development of the competition program and the operation of the national and local competition involved. Mr. Taylor is president of the firm of Taylor, Rogers & Bliss, Inc.

In order to render this competition attractive even to leading architectural firms in the residential field, prizes amounting to $27,500 will be awarded as follows:

A First Grand Prize of - - - - - -	$ 5,000.00
A Second Grand Prize of - - - - - -	3,000.00
A Third Grand Prize of - - - - - -	1,500.00
36 Regional Prizes of $500 each - -	18,000.00
Total Prize Awards - - - - - - - -	$27,500.00

Programs for this competition may be obtained when they are ready by addressing Home Owners Institute, 441 Lexington avenue, New York City.

MARBLE COMPANY EXPANDS

The Vermont Marble Company has acquired an interest in the Colorado Yule properties at Marble, Colorado, and has undertaken their management and formed a new corporation known as the Yule Colorado Marble Company. Mr. F. C. Partridge, president, and Mr. A. W. Edson, treasurer of the Vermont Marble Company, are also president and treasurer of the new corporation. The Vermont Marble Company is to be the sole agent of the Yule Colorado Marble Company. The general manager of the Yule Colorado Marble Company is Mr. H. S. Hobart, who was formerly general superintendent of mills for the Vermont Marble Company at Proctor, Vermont.

Yule Colorado marble has been used in some of the country's most imposing buildings, such as the Lincoln Memorial at Washington, and just now the Huntington Memorial is being completed at Pasadena out of the material. There are innumerable examples of this material's fitness for building work, both exterior and interior, in all the leading cities on the Pacific Coast.

ADVANCE PLANNING FOR 'PHONE FACILITIES

A useful service to architects, builders and owners has been rendered by the companies of the Bell Telephone System in the preparation of two booklets, "Planning for Home Telephone Conveniences" and "Planning for Telephones in Buildings." Each presents information relative to the planning for telephone wires and apparatus in advance of construction, so that these may be installed most advantageously from the architectural and building point of view and with special regard to the appearance of the premises and the convenience to the telephone user.

The book referring to residences has many helpful suggestions relating to overhead service entrances, conduit layouts, wiring plans, location of instruments, intercommunicating systems, and many other problems which are simplified if considered in advance.

NEW MONOLITH CEMENT PLANT

Construction of the new $2,000,000 cement mill of the Monolith Portland Midwest Company at Laramie, Wyoming, is being rushed to completion under the personal supervision of W. S. Trueblood, production manager. The plant will have a capacity of from 1800 to 2200 barrels of cement daily.

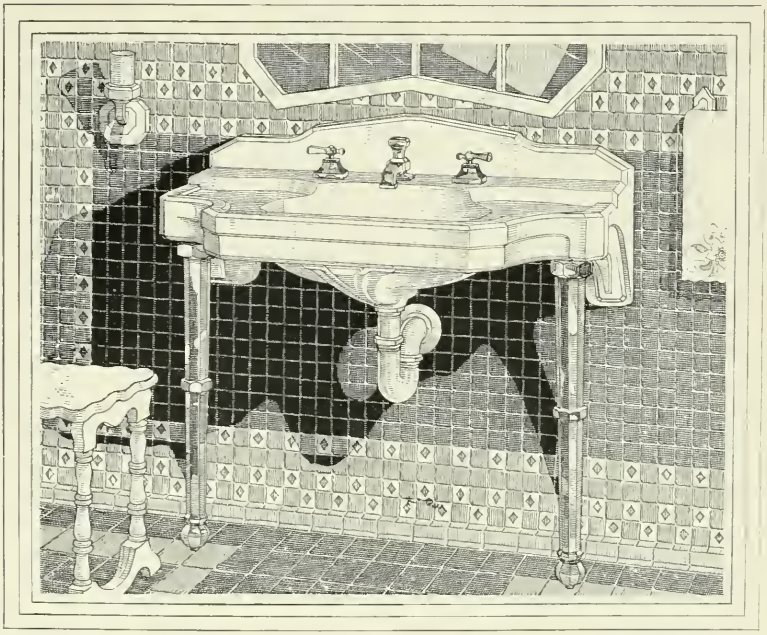
Approximately 115,000 sacks of cement, manufactured at Monolith, have been used to date in the construction of the Laramie plant. The new cement mill was designed and erected by F. L. Smith & Co., cement engineers of New York. The company owns raw material deposits, comprising 2950 acres, and valued at more than $5,000,000, in the immediate vicinity of the plant. While the Midwest company is a separate corporation, it is managed and controlled by the same men who own, control and operate the Monolith Portland Cement Company of Los Angeles.

MULHOLLAND RESIGNS

Wm. Mulholland, veteran Los Angeles engineer, has resigned as chief engineer and general manager of the Los Angeles Bureau of Water Works and Supply. As head of the city's water supply system for more than fifty years, Mr. Mulholland designed and constructed the aqueduct system which supplies the Los Angeles metropolitan area with water brought from the high Sierras more than 250 miles distant.

ONLY JAPANESE ARCHITECT

The building which will house the Japanese exhibit at the Pacific Southwest Exposition, which will be held in Long Beach, California, from July 27 to September 3, was designed by R. K. Tsakamoto, said to be the only Japanese architect practicing his profession in the United States.



The MONTECITO

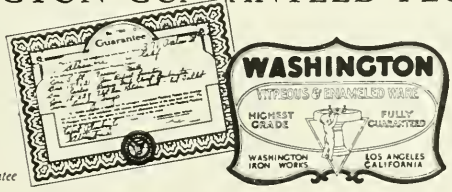
BY FAR the greatest advance in Lavatory design is represented by the new Washington Montecito Lavatory. This large Lavatory, 20"x36" in size, with integral back and integral wall brackets is made in one-piece of twice-fired vitreous china.

The integral wall brackets of harmonious design are original with this Lavatory and take away the shelf appearance so common in this type of lavatory. Another decided innovation is the concealed overflow placed at the front of the bowl, thus doing away with the unsightly open overflow in the back of the bowl.

The curved recessed corners, paneled apron and octagon shaped bowl also add to the distinction and beauty of this wonderful Lavatory. This Lavatory can also be furnished with integral spout and either crystal or chromium plated metal legs will be furnished as desired.

Not only is this Lavatory made in glistening white but also can be secured in any one of eight beautiful shades of color. In the development of this distinctive and beautiful Lavatory, convenience and utility have also been emphasized in its spacious slab, large bowl and properly placed legs.

WASHINGTON GUARANTEED PLUMBING FIXTURES



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ELECTRIC REFRIGERATION

General Electric Company has published an Architects' Hand Book on Electric Refrigeration, which is available to those interested, on request. The book describes the problem of preservation of food, the basic principles of refrigeration, the requirements for proper food preservation, the theory of refrigeration, the proper refrigerant used and what the General Electric Company has accomplished in introducing a simplified refrigerator. There are also technical descriptions of the mechanism of the G. E., and some pages on cabinet construction. Then follow complete specifications of the General Electric refrigerator line and after that eleven pages showing suggested kitchen arrangement, incorporating the G. E. refrigerator.

In the front of the book the company acknowledges the assistance of the A. I. A. in criticizing the subject matter and form of presentation of the publication.

NEW KITCHEN APPLIANCE

The Pantriette is a new device for keeping dry groceries, such as flour, sugar, cereal, etc., in a neat, orderly way in the kitchen. What the filing cabinet is to an office the Pantriette is to the home or apartment.

It consists of a series of small metal bins combined in a single compact unit, which can be installed in any pantry, kitchen, kitchen case or wherever it will be handiest. Each bin is large enough to hold the customary supply of dry staple foods. A slight turn of a small handle below each compartment permits the contents to flow out into the bowl or cup. The flour compartment is provided with a sifter, and a handy measuring cup comes with each unit. A Pantriette does away with cans, bags and boxes and keeps supplies in a clean, orderly condition ready for instant use.

M. E. Hammond, 821 Market Street, San Francisco, is the distributor.

WHAT ARCHITECTS SHOULD KNOW

(Bulletin Illinois Society of Architects.)

Architecture has to solve practical problems and to find its expressions by means of construction in a great variety of materials. The matter of practical requirements is one of the greatest importance. An architect must know how a particular family lives in order to design a house for that family, whether they eat breakfast in their rooms, and even more intimate details of family life and of personal tastes. These inquiries need to be made with tact and judgment. Watch people, learn their mode of life, see how they act in the railroad stations, restaurants, stores, and plan their buildings accordingly. The ability to write good specifications is essential, also.

ARGUMENT FOR QUANTITY SURVEY

(Bulletin, Illinois Society of Architects)

Recently a representative of one of the very prominent sub-trades in Chicago told the writer that their concern had been requested by seventeen different general contractors to submit preliminary estimates on a speculative apartment hotel that was contemplated in the new North Side Apartment district.

He further volunteered the information that an examination of the architect's plans disclosed that they were in a most preliminary state. There were no specifications accompanying the plans and an inquiry disclosed that proposals were being solicited to arrive at the approximate cost in order that a loan might be negotiated. That as a matter of fact, while these bids were solicited some weeks ago, the project has not yet been financed and in all probability the building will never be constructed.

Can our readers realize the absolute economic waste in connection with such practices?

To prepare an intelligent estimate of the cost of the project meant an expense to each of the general contractors of at least $500. The cost of preparing all of the various sub-bids which each general contractor must necessarily have secured (based upon custom, it is probable that each general contractor secured from three to five bids on each sub-trade), it would be safe to estimate that the cost of preparing these preliminary estimates for the information of this alleged architect could have been not less than $20,000.

Any experienced architect can estimate the cost of a structure designed under his general direction within a limit of from 5 per cent to 10 per cent, and these figures should be accurate enough for financing purposes; in view of the fact that every loan broker and every financial institution making building loans have their own valuation committee—usually composed of an architect or engineer, a builder and a real estate man, who prepare their own estimate of the cost of the structure independent of any figure submitted by architect or owner.

Of course, the building industry as a whole must carry this burden. The man who actually builds must help pay the cost of such unbusinesslike and unprofessional practices. Is it any wonder that in some quarters the average architect is held in disrepute?

If the average architect would occasionally use his head and conduct his professional business along business lines, building costs might be considerably reduced.

ENGINEERS ELECT OFFICERS

The following officers were elected at the annual meeting of the Society of Engineers: President, Glenn A. Ashcroft; Vice- President, E. L. Driggs; Treasurer, Wm. G. Rawles; Secretary, Albert J. Capron.

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(Organized 1857)

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BOOK REVIEWS

By Edgar A Kierulff

LOS ANGELES BUILDING GUIDE, 1929. Published by Inter-State Educational Association, A. C. Hoff, General Manager, 726 Story Building, Los Angeles, California.

An exceedingly fine edition of the building guide of Los Angeles, well arranged, containing complete data on building materials and appliances, the California State Housing act and the Los Angeles building and electrical ordinances. The publisher, A. C. Hoff, is to be complimented.

LE HAMEAU DE TRIANON (The Village of the Trianon). By Georges Gromort, Ecole des Beaux Arts, Paris, 1928. Can be obtained from the Architectural Book Shop, 46 Kearny street, San Francisco. Price $4.50.

Although the text and titles are in French, this book will be duly appreciated by architects, especially those who have studied in France. It deals with the little village near the two small palaces at Versailles, known as the Trianon. The plates and drawings are delightful in detail. In duo tone, they harmonize with the whole book.

LA PREMIERE MAISON ROYALE DE TRIANON (The First Royal House of the Trianon) 1670-1687. By Robert Danis, Architect en Chef des Palais Nationaux et des Monuments Historiques. Preface by Pierre De Nolhac de L'Academie Francais. Price $3.50. Can be obtained at the Architectural Book Shop, 46 Kearny street, San Francisco.

A beautifully arranged and very charming book on the early architectural history of the Trianon, containing maps, plans, sketches and reproductions of old engravings. This book should be a most pleasing addition to an architect's library.

THE PRACTICAL BOOK OF FURNISHING THE SMALL HOUSE AND APARTMENT. By Edward Stratton Holloway. J. L. Lippincott Co., publishers. Price $7.50.

A well-bound, well-printed volume uncut, and on a very good grade of paper. To begin with, these are attributes of a good book. The subject matter is excellent and covers a wide range. Splendid photographs and several color plates add greatly to the value and enhance the reading interest. This volume can be readily recommended to all home builders and owners.

PLUMBING QUESTIONS AND ANSWERS. By Joseph T. Taggart. Scientific Book Corporation, New York, publishers. Cost $2.00.

A small handbook on plumbing, asking and answering questions based on the rules and regulations of the City of New York. It contains much valuable information to the laymen, as well as for sanitary engineers, inspectors of plumbing, draftsmen, architects and specification writers.

DRAFTING ROOM PRACTICE. By Eugene Clute. Pencil Points Press, New York, publishers. Price $6.00.

It is always a pleasure for this Department to be in receipt of a new publication from the Pencil Points Press, and this volume being reviewed here is no exception.

Beautiful in arrangement of plates and drawings, well edited in a clear and concise manner, it invites inspection and should be a noteworthy addition to the shelves of the architect, the draftsman and the student.

HANDBOOK OF DOMESTIC OIL-HEATING. Edited by Harry F. Tapp. American Oil Burner Association, New York, publishers.

A handbook on the problems of domestic oil heating, giving to those engaged in the industry of oil heating authoritative information on the many and varied problems of this industry.

Chapters deal with such questions as combustion, equipment and technical material. It contains cuts and diagrams; an excellent and handy reference book.

REFRIGERATOR INSTALLATIONS

According to F. W. Moore, representative in San Francisco for the McCray Refrigerator Company, McCray installations have recently been completed in the following buildings: St. Mary's Hospital, San Francisco, this installation amounting to more than $12,000; St. Francis Yacht Club, San Francisco; Alta Bates Hospital, Berkeley, St. Agnes' Hospital, Fresno.

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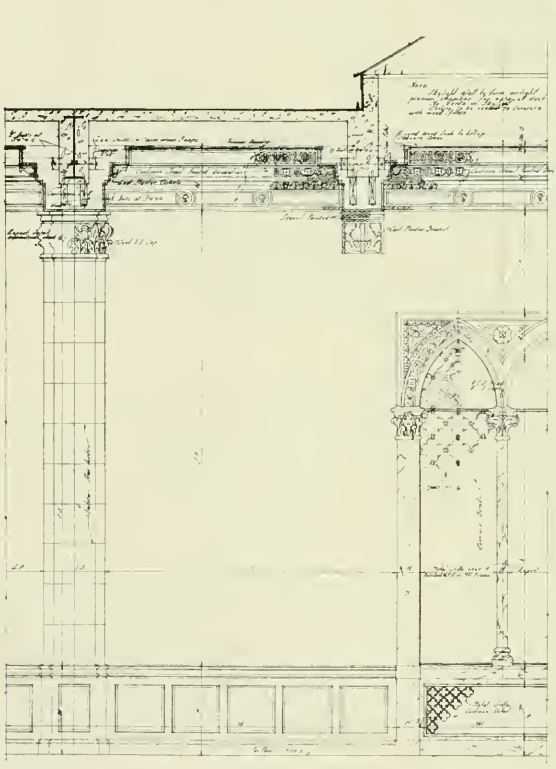
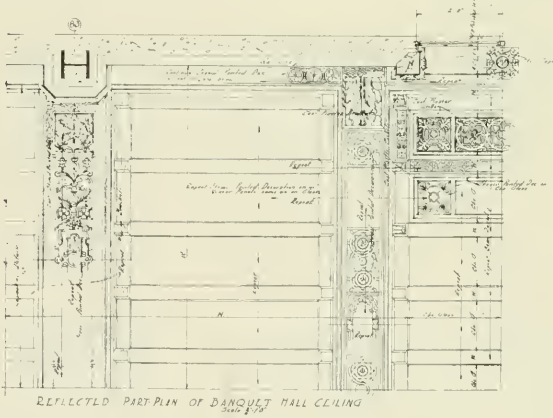


PART-ELLEVATION OF SOUTH WALL TOWARD WINDOWS

SECTION THRU WINDOW



REFLECTED PART PLAN OF BANQUET HALL CEILING

INTERESTING
DETAIL
IN
BANQUET HALL,
SIR FRANCIS DRAKE
HOTEL,
SAN FRANCISCO

WEEKS & DAY,
ARCHITECTS

The ARCHITECT AND ENGINEER

MARCH
1929

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Who's Who in this Issue

FREDERICK H. REIMERS, Franklin Building, Oakland, is a graduate of the University of California School of Architecture, 1914. Since that year, with the exception of during the World War, Mr. Reimers has practiced his profession continuously in Berkeley and Oakland. His work has included a twelve-story Class A office building, known as the Franklin Building, Oakland; the six-story office building for the Income Properties, Inc., illustrated in this issue, and a large number of shops and residences. Mr. Reimers is a member of the American Institute of Architects and the California State Association of Architects. He is secretary of the Alameda County Society of Architects.

JOHN AND DONALD B. PARKINSON, Title Insurance Building, Los Angeles. One of the best known and reputable architectural firms practicing the profession in California. John Parkinson, the senior member of the firm, belongs to those hardy pioneers in the profession who contributed not a little to the early growth and upbuilding of the city of Los Angeles. Later he became associated with Edwin Bergstrom, now Treasurer of the American Institute of Architects. In recent years Mr. Parkinson's son, Donald B. Parkinson, has been associated with him, this partnership being formed upon the completion of young Parkinson's school career and travels abroad. Their building, the Title Insurance, illustrated in this number, is considered one of the outstanding achievements in office building design in the Southern California City.

JOHN WILLIAM GREGG, whose article on City Planning appears in this issue, is a graduate of Boston University and Massachusetts State College with degree of Bachelor of Science. Professor Gregg was connected with the Department of Landscape Architecture at the St. Louis World's Fair in 1904. The following year he practiced landscape architecture in Nebraska and continued this practice for a period of three years. He has been Professor of Landscape Design and Landscape Architecture at the University of California since 1913. He was president of the Park Commission, City of Berkeley, for eight years and was also a member of the City Planning Commission in that city for the same length of time. He is at present practicing landscape architecture in addition to his work at the University. For several years Professor Gregg was associated with Dr. Elwood Mead when he was director of the State Land Settlement Work. He is Secretary of the Pacific Coast Chapter of the American Society of Landscape Architects.

MICHAEL M. O'SHAUGHNESSY, City Engineer of San Francisco, is probably one of the best known engineers in the country, his connection with the Hetch Hetchy water supply project, about which he writes in this issue, having brought him international recognition. O'Shaughnessy was born in Limerick, Ireland, May 28, 1864. He was educated in the public schools of Ireland, Queens College, Galway, and the Royal University, Dublin. At the latter institution he received the degree of Bachelor of Engineering. He came to San Francisco in April, 1885, and from April, 1886, to the latter part of 1887 he was Assistant Engineer to the Southern Pacific Company. Subsequently Mr. O'Shaughnessy was a Civil Engineer at San Luis Obispo and Mill Valley. He was Chief Engineer for the California-Mid Winter International Exposition at Golden Gate Park, San Francisco, in 1884. He became City Engineer of San Francisco September 1st, 1912, and his accomplishments for the city have been varied and valuable. Chief among them have been the building of the Municipal railways, the Stockton street tunnel, Twin Peaks tunnel, Sunset tunnel, Ocean Beach Esplanade and Hunters Point Boulevard. Mr. O'Shaughnessy has served as consultant on various important engineering projects throughout the country.

LEWIS P. HOBART, Crocker Building, San Francisco, architect of the O'Connor-Moffatt Building, has been practicing in San Francisco for more than twenty years and has achieved national recognition for some of his work, including the United States Post Office Building in Portland. This commission was won by his office in a national competition. Mr. Hobart received his early architectural training in the office of Carrere and Hastings, designers of many notable buildings in the East. To enumerate Mr. Hobart's work in San Francisco would mean to list many of the city's most prominent buildings. St. Lukes and the Red Cross Hospitals were designed in his office as were the Underwood and Alexander office buildings, Grace Cathedral and the Taylor Hotel. The last two named structures are under construction at the present time.

CHARLES E. PETERSON, whose clever sketches appear in the Playful Side of Architecture this month, was born in Madison, Minnesota, and graduated from the high school there in 1924. He received the degree of Bachelor of Arts and Architecture in the University of Minnesota and won distinction for his design of a Memorial Chapel in the 1928 Paris Prize First Preliminaries. Young Peterson has traveled extensively in the western national parks and forests on surveying parties. He came to San Francisco in July, 1928, to take the U. S. Civil Service examination which resulted in his appointment as assistant architect in the Division of Landscape Architecture, National Park Service. He is a member of the Phi Kappa Sigma, the Pi Alpha National Honorary Art Fraternity and the National Collegiate Players.

F. EUGENE BARTON, architect in the Crocker Building, San Francisco, received his early training in the California Guild of Arts and Crafts, Society of Beaux Arts Architects and twelve years in the office of Lewis P. Hobart, San Francisco architect. For the past three years Mr. Barton has been engaged in independent practice, designing many buildings throughout the state, including office structures, industrial buildings, clubs, hospitals, banks and residences. During the World War Mr. Barton served in France as a member of the Engineers Corps American Expeditionary Forces. Mr. Barton is a member of the State Association of California Architects, American Legion and the Society of American Military Engineers.

A Beautiful Building Gains Charm From Correct Shading

Project: Dalton Apartments, Los Angeles.
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Luxor Shading Matches Architecture In Dalton Apartments

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IT IS one thing to execute the architect's plans on building projects insofar as those plans allow for interior and exterior refinements on construction. It is another however to select just the right quality and color of shading to completely harmonize with the building exterior and interior. Too often, fine examples of the designer's art are marred thru the poor effect obtained by improperly selected shades.

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The ARCHITECT AND ENGINEER

Since 1905

VOLUME 96 MARCH, 1929 NUMBER 3

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An exterior view of St. Mary's Hospital, San Francisco, Calif. Equipped throughout with McCray Refrigerators

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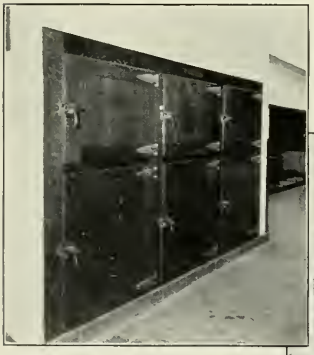

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ETCHINGS OF THE FRANCISCAN MISSIONS OF CALIFORNIA

By Henry Chapman Ford

No. XIII—Mission San Carlos Borromeo (Or Carmel Mission)

Mission San Carlos was moved from Monterey to Carmel in May, 1771. The Mission was named for San Carlos Borromeo, an Italian churchman. The original Mission included some seven or eight adobe structures which have long since disappeared. The church itself was rebuilt three times, the last time of stone. The plan does not vary materially from the typical Mission edifice, and consists of a simple nave with outlying sacristies and baptistries. Towers flank the main portal.

Among the interesting details of the church is an interior doorway—one of the most ornate doorways to be found in any of the California Missions. It was executed by a stone-carver of evident skill and who possessed some knowledge of Doric architecture.

Another feature of San Carlos, different from other Missions, is the baptistry of irregular octagon shape. The present pulpit is modern, the old one having completely disappeared during the years the church was uncovered.

MISSION SAN CARLOS BORROMEO (CARMEL)
FROM AN ETCHING BY HENRY CHAPMAN FORD

The
ARCHITECT
AND ENGINEER
March, 1929

The ARCHITECT AND ENGINEER

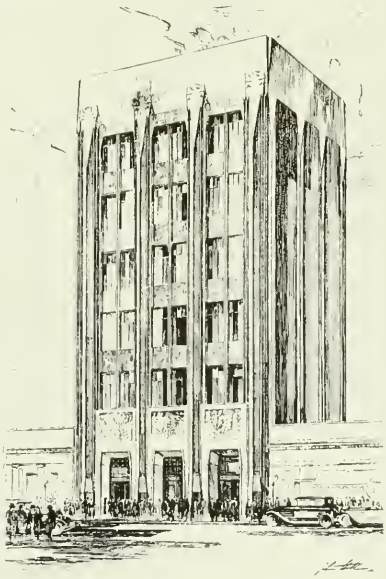
VOLUME XCVI MARCH, 1929 NUMBER THREE

OAKLAND OFFICE BUILDING REFLECTS THE MODERN SPIRIT

Frederick H. Reimers, Architect

NO OFFICE building in the San Francisco Bay region has been more freely discussed in the last few months than the six story home of the Income Securities Corporation at 364 Fourteenth street, Oakland. There is no other building just like it in the west, hence the unusual interest of the profession and others who are following closely the more or less radical trend of modern architecture. The design—sculptural in conception — possesses a certain dignity and freshness that offers a pleasant relief from the time-worn office building fronts with their monotonous orthodox ornamentation.

To John Stoll, artist of San Francisco, must be given credit for conceiving the admittedly unique facade and Frederick H. Reimers, the architect, has caught the spirit of the thing, bringing the whole design into a highly pleasing mass. And from the straight line treatment, the features of the main facade are the three plaques, executed in stonetex over the two entrances and the dividing ground floor window.



The facade is buttressed at four equal points. The triangular buttresses terminate on their slope in a boldly outlined sculptured eagle, flat in design. This slope corresponds with the slope of the parapet wall. The pinions of the eagle fall or continue into the flanking flutings. These vertically streaming light and shade relations supply the needed height to the building.

The triangular forms of the buttresses and flutings, at an angle with the deeply revealed doors, and the

Photo by M. L. Cohen *Other Illustrations Pages 79, 81 and 83*

OFFICE BUILDING FOR INCOME SECURITIES CORPORATION, OAKLAND

FREDERICK H. REIMERS, ARCHITECT

broad surface of stone above them, are virtues which increase the feeling of stone in width, and the actual fifty feet frontage assumes the illusion of even greater width.

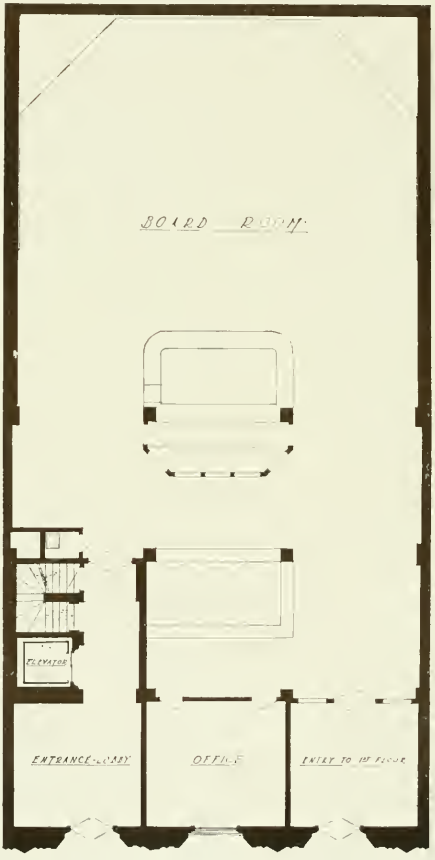
The accentuations of decorations on the building seem a logical appeal to mind and eye at the points at which they appear. The eagles form a simple, powerful and interpretative finish. Other lines and perspectives help the eye to the main motive of the sculptured low relief panels above the doors. These are cut to conform with the spirit of the conception as a whole. Repeating the feeling of the slope of the parapet wall, the heads of the figures are cut approximately two inches deep, V-shaped technically in the cutting, tapering to a half inch or less toward the feet. The figures are proportioned with big and powerful anatomy, over-emphasizing, to better represent the purpose of composition and movement. Flanking panels move toward the central panel. The following is a brief description of each panel:

Central panel: Subject Architecture. Composed that the sense of motion becomes restive with man, showing almost a full back view looking inward, supposedly comparing an elevation with the structure in the center of the panel. Also the man in profile, perusing plan in a sitting posture, is an effective point of arrest, for the motion coming from the left. The left group in the panel carries models and plans, the right group represents builders. The progressive spirit of architectural representation prevails.

Left Panel: Subject General Activities. Purposeful in spirit and action. The figure is making a long stride, bearing a scale in the left hand, symbolical of justness in dealings. The boy and young lion, youth and confidence, are symbolically applicable to any young institution. Aspiration is expressed in the composite group of women and men on the right of the panel. The left group, comprising various types of activities, follows gladly the foregoing virtues. The horses emphasize the motive strength of the low-relief.

Right Panel: Subject Commerce and Shipping. This panel is handled with a thought of introspect and vision. The two powerful figures sitting on the hawser, their backs turned toward the spectator, seem to reflect, perhaps on the fleet clippers that used to carry the great commerce of the opening world; or, perhaps are occupied with visions of great modern designed commerce carriers of the future. The group on the right represents sailors, one carrying a compass, the other two point

[Please turn to Page 62]



GROUND PLAN, INCOME SECURITIES BUILDING
Frederick H. Reimers, Architect

Photo by Depue, Morgan & Co., Inc.

CIVIC AUDITORIUM, ATHLETIC FIELD AND BLEACHERS, SEATTLE, WASHINGTON

SCHACK, YOUNG & MYERS, ARCHITECTS

THE SEATTLE CIVIC AUDITORIUM

By
Charles H. Alden, F.A.I.A.

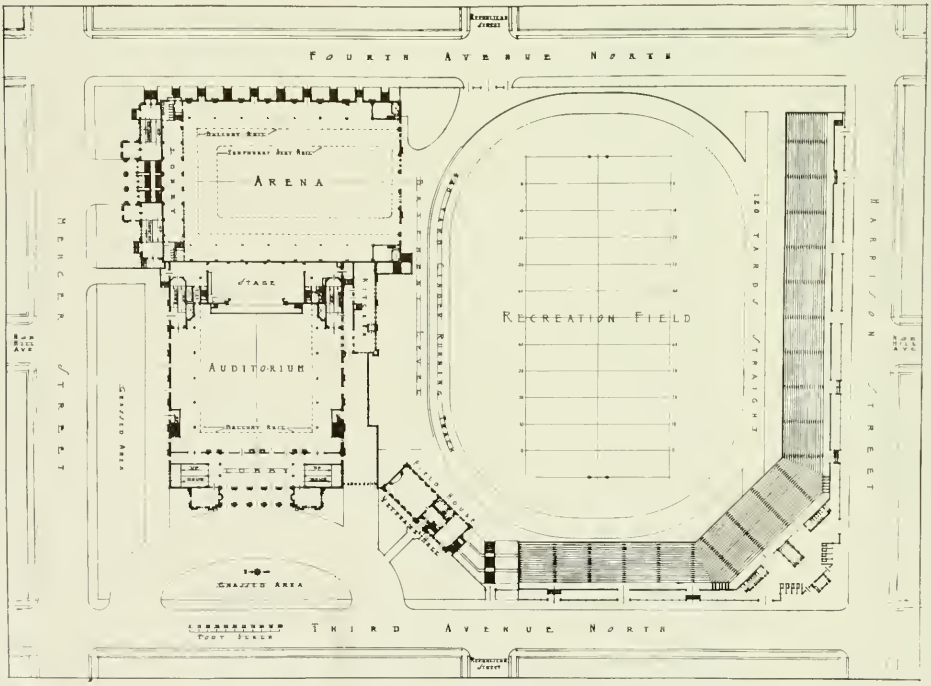
SEATTLE'S new Civic Auditorium is the fulfillment of a natural desire felt by any community for a suitable meeting place for its citizens and others whom the community might wish to entertain. This desire has always been a significant factor in community life. In older and smaller communities it was realized in the town hall, where the town meetings were held and opportunity was also afforded for various forms of entertainment, county fairs for the display of local products, and the building often had public grounds adjacent to it, where live stock exhibitions, horse racing and various forms of athletics could take place. These town halls, with the grounds around them, formed an effective civic feature, giving a certain distinction to the community and serving an important function in providing a meeting place owned by, and open to, all of its citizens, thus fostering and unifying the civic spirit.

As cities grew larger with increasing variety in their life and activities, we still have the community desire for a public meeting place, but the intricate physical structure of the city and the many uses for which such a building could be used, greatly complicate the problem. There are the public meetings of the citizens, in larger or smaller groups, entertainments where large audiences must often be accommodated and ample stage equipment provided, extensive floor space for exhibitions, horse shows and other sporting events demanding the arena form of structure and provision for various forms of athletics. In addition to this, progressive cities require provision for the great forums of business, fraternal activity or social welfare, called conventions, which have come to be important civic events. With all this variety of uses, often antagonistic in their requirements, there is the natural desire that such an important civic building be given a monumental character, taking its place in a civic group, or civic center, where civic activity can be focused, a common open area provided, and the transportation problem simplified by concentrating in one location these several places of public resort.

These various requirements being difficult and generally impossible to effectively harmonize in one structure, it becomes an individual problem for each city to decide which requirements should govern and to what extent. When the city plan is sufficiently determined, the auditorium building may be monumental and form a part of a civic center and made to serve, as well as conditions will permit, the practical needs of the community. To enable the building to serve a variety of uses it is sometimes made with the portions working in combination or convertible by mechanical means to accommodate the various forms of occupancy. With cities differing as they do, what should be done in each case becomes a problem for individual solution.

Seattle, in common with other growing western cities, has for many years felt this need for an auditorium and endeavored to provide for it, but until the realization of the present structure the complexity of the problem has made the various efforts unsuccessful. A first thought was a monumental building in a civic center, and this provision was made for an auditorium in the report of the Municipal Plans Commission in 1911, but this civic center idea appeared impracticable. A later attempt of a similar

PERSPECTIVE, CIVIC AUDITORIUM, SEATTLE, WASHINGTON
Schack, Young & Myers, Architects



PLOT PLAN, CIVIC AUDITORIUM, SEATTLE, WASHINGTON
Schack, Young & Myers, Architects

character incorporated an auditorium in a civic group around an existing park which appeared to furnish an appropriate location. The indeterminate character of Seattle's growth, however, appeared to relegate determination of Seattle's civic center to an uncertain future, and the auditorium needs being insistent, it was considered necessary to provide for them in a direct and practicable manner without attempting to make the building a part of a civic center with the necessity of giving it the monumental character such a location would demand.

To meet the situation, a survey was undertaken some three years ago, by the Seattle Chamber of Commerce, which employed as consulting architects, Schack, Young and Myers, to ascertain the exact needs of the city and how these needs could be met, with the city in the condition then existing, and with its available resources. Any attempt to ally the auditorium with a civic center was deemed unwarranted, for the reasons which have been stated, and the survey was made on a more strictly utilitarian basis, endeavoring to supply Seattle's practical needs, find a suitable location, and work out for this location an economical solution of the construction problem.

As a result of this survey it was decided that there should be provided, first, an auditorium with adequate seating capacity suitable for conventions and entertainments, this auditorium to have complete stage equipment; second, an arena, and third, an open air athletic field. Separate structures were to be provided for each of these uses, but combined in such a manner that they would supplement each other when the occasion offered. A suitable site for the project was obtained, sketch plans were prepared by the architects and a preliminary estimate made of the cost of construction.

The next step was to arrange for the acquisition of the necessary funds. Advantage was taken of what was known as the Osborne bequest, a fund bequeathed to Seattle in its early days by James Osborne, a public-spirited citizen, for public auditorium purposes. This fund, which, with accrued interest, had grown to approximately $110,000, provided an effective nucleus. For the remaining major portion of the funds it was decided to rely on public obligation bonds, placing the cost of this civic enterprise directly before the people at a general election. This was done, and the bonds voted by a substantial majority.

The project now passed under the control of the city and the employment of the architects who had done the preliminary work was continued. After some revisions had been made, working drawings and specifications were prepared, the contract let and the contractors proceeded immediately with the work under great difficulties, due to the undeveloped character of the site; the filling in and grading of the streets, with the installation of the sewers and other utilities by the city being carried on simultaneously with the building construction, making the site almost inaccessible. That the auditorium portion was ready for temporary occupancy seven months after ground was broken reflects great credit on the efficient management of the architects, public officials and the skill and enterprise of Bartleson & Ness, the contractors.

The project as now completed will appear from the accompanying illustrations. It covers four city blocks, measuring approximately five hundred and eighty by eight hundred and thirty feet, the site being conveniently located to the north of the central business section of the city, in line with the city's growth, and about ten minutes from the down-town section. The auditorium, the main building of the group, has a seating capacity of seven thousand five hundred on main floor and balcony, these being reached through a spacious lobby and vestibule from which ramps give easy access to the balcony level. Additional ramps are provided at the far corners of the balcony with staircases forming extra emergency exits, and ample exits are provided from the main auditorium floor. The stage is the largest in the Pacific Northwest, is completely equipped and has, in connection with it numerous dressing rooms, chorus rooms, orchestra rooms and other spaces that might be required. In a separate wing, but connected directly with the audi-

torium, are complete kitchen accommodations capable of serving three thousand people on the main auditorium floor.

The arena, immediately in the rear of the auditorium, has permanent seating for six thousand in balconies around an area approximately one hundred by two hundred feet. The arena floor is directly on the ground, in which eight miles of piping is installed connected with an ice plant in the building, enabling the floor surface to be flooded and frozen for ice skating and hockey, to which the arena will be devoted for five months of the year. This building has various accessory rooms and an independent heating and ventilating apparatus. The main floor is on the same level as the basement or ground floor of the auditorium, which is also the level of the athletic field, making the entire project usable together for a wide variety of events.

The recreation field is designed primarily for amateur athletic events, commercial and industrial leagues, and the city high schools. It contains approximately six acres, providing a regulation football field, surrounded by a quarter-mile running track, all with an elaborate drainage system. The amphitheater seats for spectators accommodate approximately ten thousand. The athletes are housed in an independent building constructed especially for their use, containing team rooms and training quarters. A portion of this building has been set aside as a meeting place for organizations of service men.

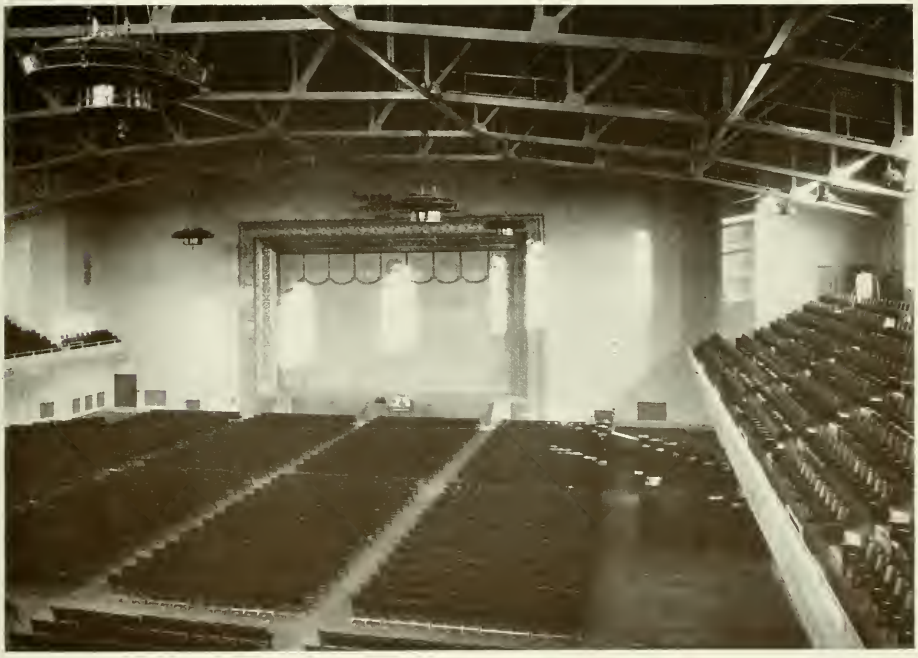
The buildings are all of fireproof construction, the outside walls of brick and concrete finished with stucco. While the buildings are simple in design they are given an appropriate architectural character with main entrance and other features

CIVIC AUDITORIUM, SEATTLE, WASHINGTON
Schack, Young & Myers, Architects

attractively ornamented. The interiors also have a simple and appropriate architectural character, the main auditorium vestibule being handsomely decorated, a special feature being the mural paintings descriptive of the Pacific Northwest in the lunettes over the entrances to the balconies.

Special consideration was given to all elements of permanence and safety. Areas and exits are, in general, at grade and all access from one level to another is by means of ramps, surfaced with non-slip aggregates. The roofs are covered with asbestos shingles and skylights are of lead encased steel. All hardware was selected with a view to permanence, utility and safety and is of the best quality throughout. There is an extensive use of hollow metal doors in the building. All basement and storage areas are equipped with automatic sprinklers. The stage contains a complete complement of modern features, including safety curtain, steel smoke pockets, automatic sprinklers above and below the gridiron and throughout in dressing rooms and passages, and steel smoke vents and other items are provided to make a complete safety equipment.

For easy and flexible operation of the plant a multitude of utilities have been provided to serve every conceivable use which might be required. At numerous points throughout the building, there are outlets for hot and cold water and drainage and abundant electrical outlets for lighting and power are available at all points. The ground floors are equipped with elaborate drainage systems, permitting the housing of stock, and all floors, including the maple floor of the main audience room, have been so constructed that trucks or tractors may be driven over them without damage.



CIVIC AUDITORIUM, SEATTLE, WASHINGTON
Schack, Young & Myers, Architects

The main audience hall has been treated with corrective acoustical felt and recent trials have shown the results to be all that could be desired. Portable chairs are stored in specially constructed trucks, which are carried on a large freight elevator from their storage space underneath the stage to any part of the plant where they may be set up at a minimum cost. Light fixtures in the large areas have been arranged for numerous color effects and all are on dimmers. There is an abundance of accessory rooms, such as check rooms and committee rooms, all of which can be made convertible to various uses. Special rooms have been provided for telephone and telegraph service and the press. An elaborate public address system has been so arranged that the speaking horns can be located anywhere in the plant. The heating and ventilating systems are arranged for total or partial re-circulation, depending on conditions under which the plant is required to be operated. Minor rooms about the plant are, in general, heated with electric heat so that small meetings may be held at any time without the necessity of operating the boilers.

The immediate demand for the auditorium for convention purposes and the abandonment of any idea of a civic center effect not appropriate to the site selected, made the problem one of meeting the practical requirements with the utmost speed and with the greatest economy. The total cost of the entire work, less the ground, was $1,114,000, which included complete furnishings and equipment, architects' fees and incidental items. The buildings thus furnished and completely equipped cost twelve and one-half cents per cubic foot.

That this result could be so successfully accomplished, while reflecting great credit on all concerned in the construction, was particularly due to the architects, Schack, Young and Myers, and to G. Walter Roberg, superintendent of buildings, who handled the project for the city. The entire project is finding immediate use on completion, its various uses appealing to many elements in the community. In October, shortly after the completion of the building, the international horse show occupied the arena and ground floor of the auditorium, housing on the premises two hundred and eighty-five thoroughbreds in box stalls, and the arena was arranged with a tanbark show ring one hundred by two hundred feet and seating five thousand persons. Concerts, political meetings and festivals are going on in the main audience room of the auditorium and there are several football games going on each week in the recreation field. Early in November, the arena became an ice rink. This has already proved that Seattle's Civic Auditorium group is fulfilling its purpose of furnishing an adequate recreation plant which should serve the city for many years, not interfering with the ultimate acquisition of a monumental civic center when such a project is needed by the city, but serving continually as a recreation center, conveniently located and meeting the various requirements demanded by the citizens of the city.

THE ARCHITECT AND ENGINEER· PORTFOLIO OF MODERN ART AND ARCHITECTURE

Courtesy Art and Decoration

PRIMARY SCHOOL. HOLLAND. DUDOK. ARCHITECT
AN INTERESTING STUDY OF LARGE MASSES AND
RELATED VOLUMES HANDLED IN A BOLD MANNER.

ARRANGED BY WILLIAM·I·GARREN ARCHITECT

THE ARCHITECT AND ENGINEER, in line with its progressive policy of showing the latest and best examples of architectural work on the Pacific Coast, is inaugurating a new department commencing with this issue. Considerable interest has been evidenced in some of the modern work shown in recent publications, hence the occasion for the accompanying Portfolio of Modern Art and Architecture. From month to month there will be reproduced here pictures expressive of modern tendencies as depicted in Painting, Sculpture, Engineering and Architecture.

It is our desire to show readers of the magazine the best that is being done in the field today. With this in mind we have secured the collaboration of William I. Garren, A. I. A., San Francisco, who will select the material for this department. Mr. Garren, in addition to being a student of modern art, has designed some creditable buildings, furniture and fixtures in new and original forms.

For an understanding and appreciation of the things shown in this Portfolio, we offer the following comments: First of all, there is very little essential difference between the modernist and traditionalist architects when their approach is analyzed. Each is inspired to create the perfect structure. One worships, or rather accepts the fine things of the past as his beginning, while the other starts anew and attempts, perhaps unconsciously, the creation of new forms. Both, if of equal ability, will design equally good architecture. The departure in the process where the greatest difference develops is at the point that the modernist adds to his study of mass, composition and line the study of volume, space and texture. Development of the latter three, without the former, leads to no good results. Volume, space and texture have always been present in the minds of the architects, but some designers have capitalized their possibilities for new creative expressions.

In the sense that continuous and monolithic structural design is replacing the column, lintel and arch method of design we may call our buildings plastic, and our architecture a plastic art.

Difficulties today attend any attempt to relate the interior of most buildings, to their exterior. This has led architects to experiment with the new interior treatments, of space and volumes. Examples may be found in many of the French hotel and theater interiors.

Manufactured articles, replacing the products of nature and weathering, have offered many problems for the architect to solve. For years he has bent his efforts to producing natural and interesting textures in manufactured products. The result had been for the craftsmen to attempt to imitate stone, bronze, lead, art glass and marble until many have become slaves of the texturing and imitative arts. In the newer work that is being done, architects are searching and experimenting with the natural textures of manufactured products. There is a new interest in materials, in wood with its fibrous quality, stone with its strata, steel, crystaline in its composition, and plaster or concrete flowing to their set.

New uses of old materials offer an unexplored field in design today. The use of glass for surface texture and solid plane, as well as for transparency, has seen some fine examples in the recent work of Frank Lloyd Wright, architect. Light as a medium has been designed in its play through glass and in its fall on surfaces and planes to develop new lighting fixtures.

There is an interesting field for the student in the study of contemporary work in modern music, painting, sculpture and architecture. Painters have perhaps led in the field of the arts toward the present modern world movement. They have for twenty years or more been working, inspired by Cezanne, Gauguin, Monet, Van Gogh and others. The art of painting, breaking away in a measure from the past, has progressed through the experimental stages of cubist, futurist and impressionist to its present period which is to date its best.

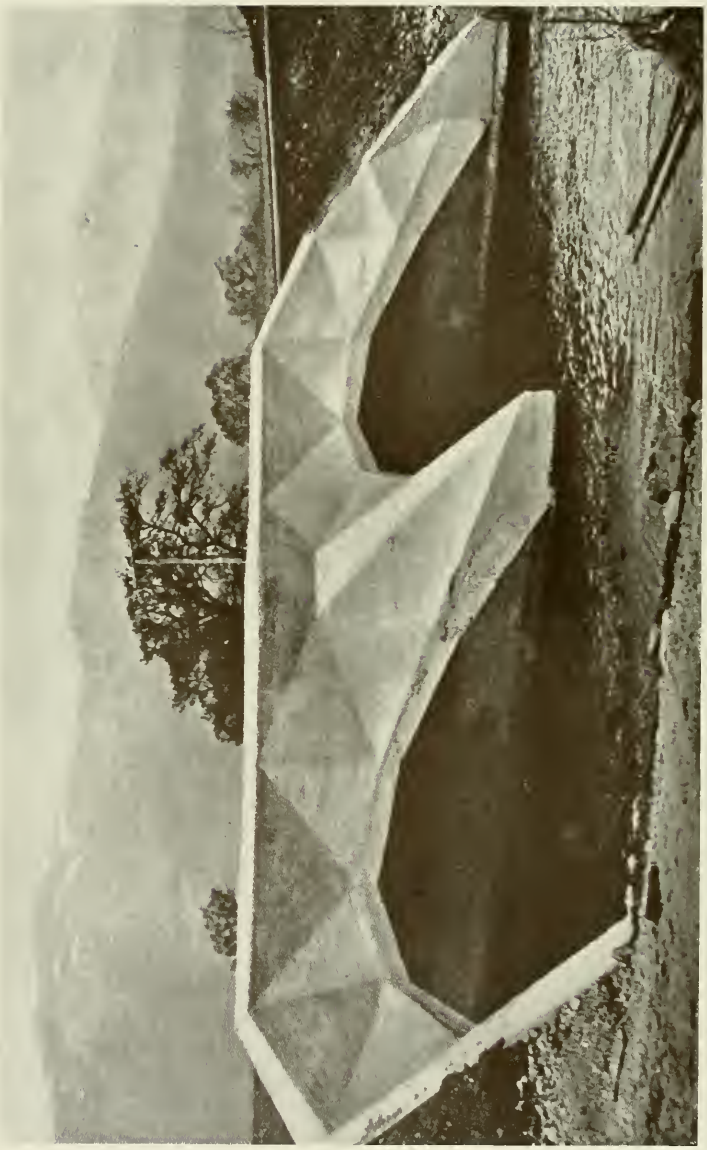
American architects are creating in the large metropolitan centers, works that will forever mark them masters of their time. In this Portfolio eastern work will be shown along with local buildings and in addition, things produced in Europe. The readers of The Architect and Engineer will thus have a rare opportunity to compare the work of their contemporaries in the world of the Arts.—EDITOR.

Courtesy Art and Decoration

RECEPTION HALL, MINISTER OF BEAUX-ARTS

MICHEL ROUX-SPITZ, ARCHITECT

WHEN WILL AMERICA GIVE THE FINE ARTS SUCH RECOGNITION?



Courtesy Creative Art

REINFORCED CONCRETE BRIDGE, ENGLAND
MAXWELL AYRTON, F. R. I. B. A., ARCHITECT

THE COMBINATION OF BOLD COLUMNS, MULTIPLE PLANES AND TEXTURES PRODUCE AN EFFECT IN STRIKING HARMONY WITH THE SURROUNDING LANDSCAPE

A PUBLISHING COMPANY'S OFFICE

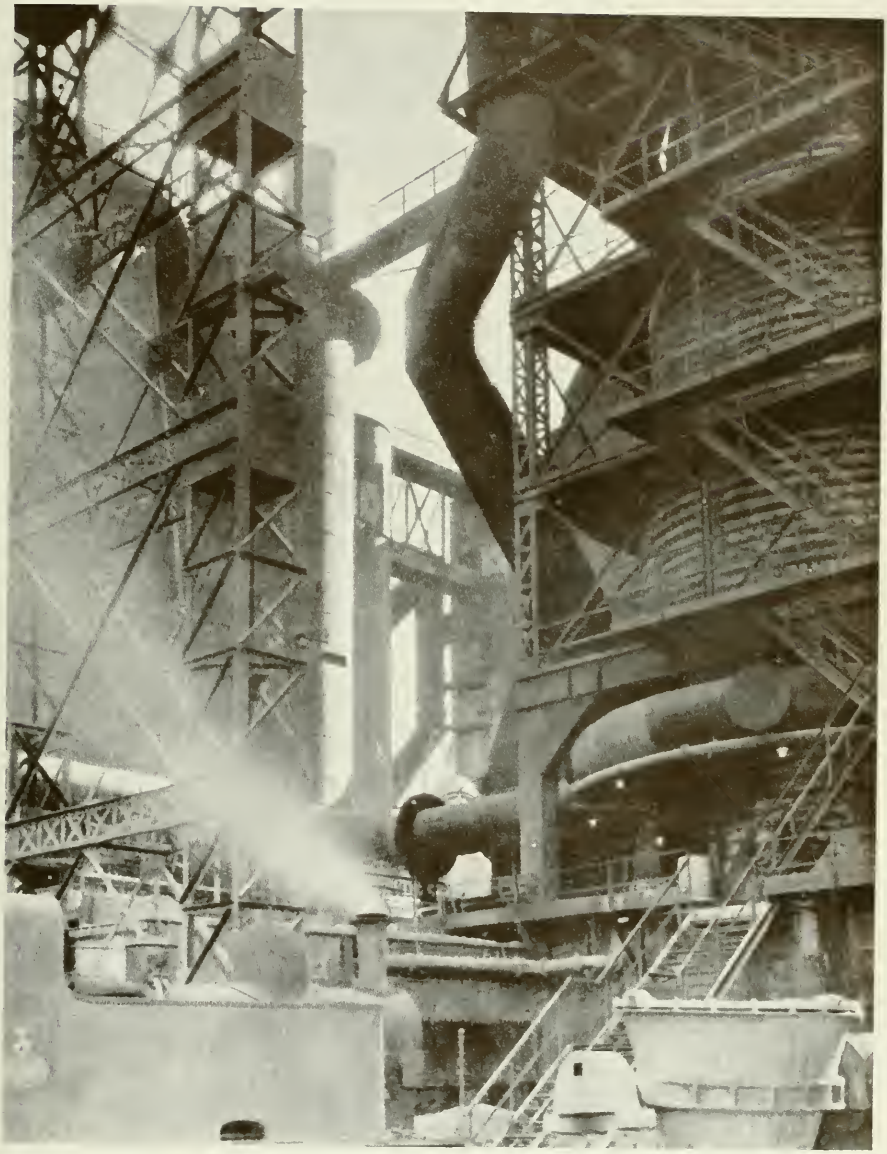
AN INTERIOR CREATION WHERE LIGHT AND TEXTURES MODEL SPACE VOLUMES

Courtesy Art and Decoration

Courtesy Creative Art

DETAIL FROM "THE HARVEST OF FRUIT AND KNOWLEDGE"

FRESCO—MEXICO BY DIEGO RIVERA



Courtesy Art and Decoration

PLANT IN LORRAINE, FRANCE

THE INSPIRATION FOR SOME MODERN ART DEVELOPMENTS

MY EUROPEAN IMPRESSIONS

By
C O Clausen Architect San Francisco

XIV. VENICE

EVER since childhood my imagination had been attempting to visualize this remarkable "Dream City." Now, after my first gondola ride on the Grand Canal my desires are delightfully gratified to see in reality this magic city which seems to float in splendor on the sea.

Venice is built on many small islands separated by numerous canals and connected by many bridges. The Rialto Bridge is the most famous and as you walk over it you will perhaps recall Shylock's words: "Signor Antonio, many a time and oft in the Rialto you have rated me about my money and my usances."

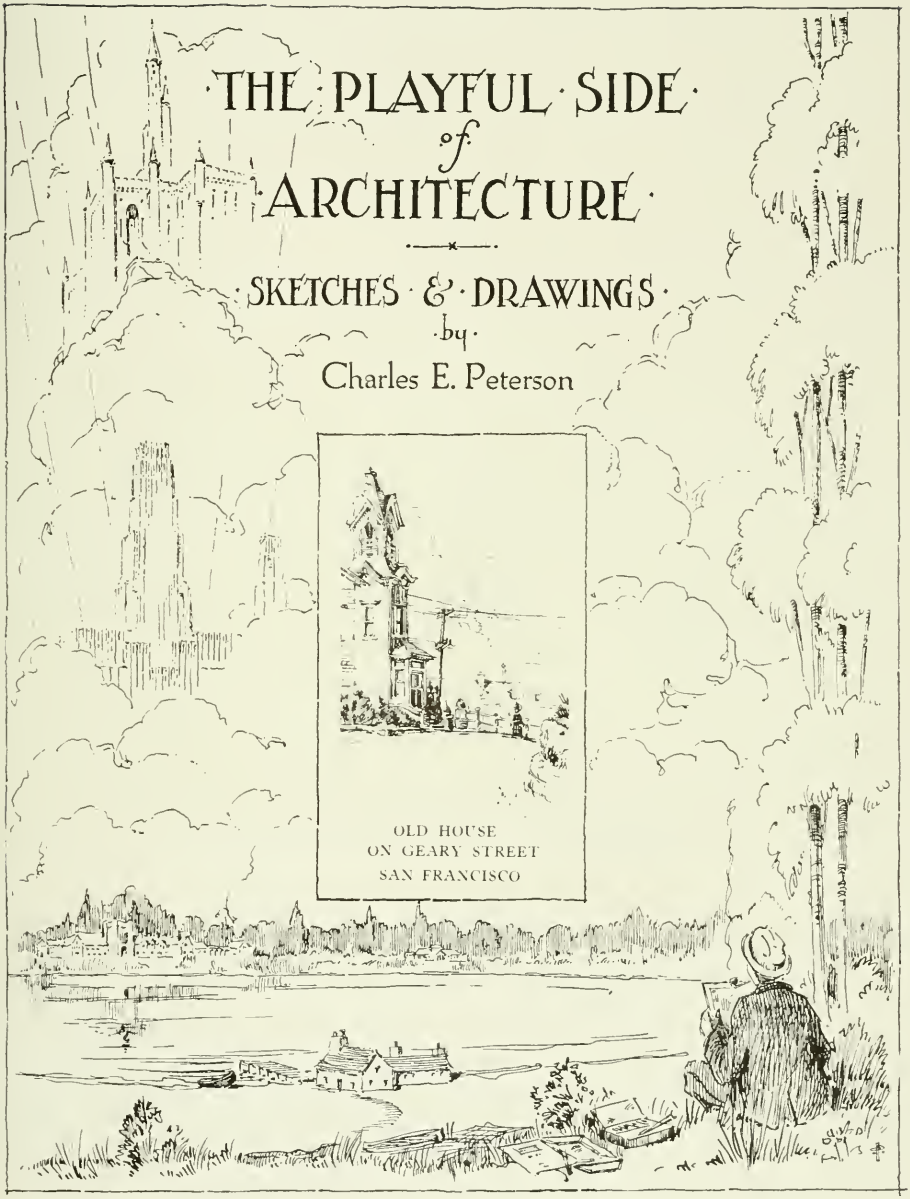
St. Mark's Square, like in ancient times, is the chief center of interest in the daily life of Venice. Facing the square is the noted cathedral built over eight hundred years ago. It is built in the Byzantine style which the Venetians brought back with them from their Eastern wars. Above the main entrance are four huge horses of gilded bronze which Napoleon once took to Paris, but which were restored by the allies after Waterloo.

To the right of the church is the famous campanile, 330 feet high. This structure is an exact duplicate of the old campanile which fell in 1902 after standing for ten centuries. The old tower collapsed at 2 o'clock in the morning, sending forth a cloud of dust collected during a thousand years and without occasioning a single loss of life. The work of rebuilding was immediately commenced and soon afterwards the Venetians were over their anguish, proudly fulfilling their determination expressed in the slogan that the tower must be erected "Dov'era, com'era" (Where it was and as it was).

Adjoining the square on the right is the Piazetta, flanked on one side by the famous Doge's Palace. At the edge of the Piazetta are two red granite columns, one surmounted with the winged lion of St. Mark and the other bearing St. Theodore, patron saint of the Republic. The Piazetti is one of the favorite landing places of the gondolas. These picturesque crafts are gradually being replaced by motor boats which take away much of the charm and glory of the past.

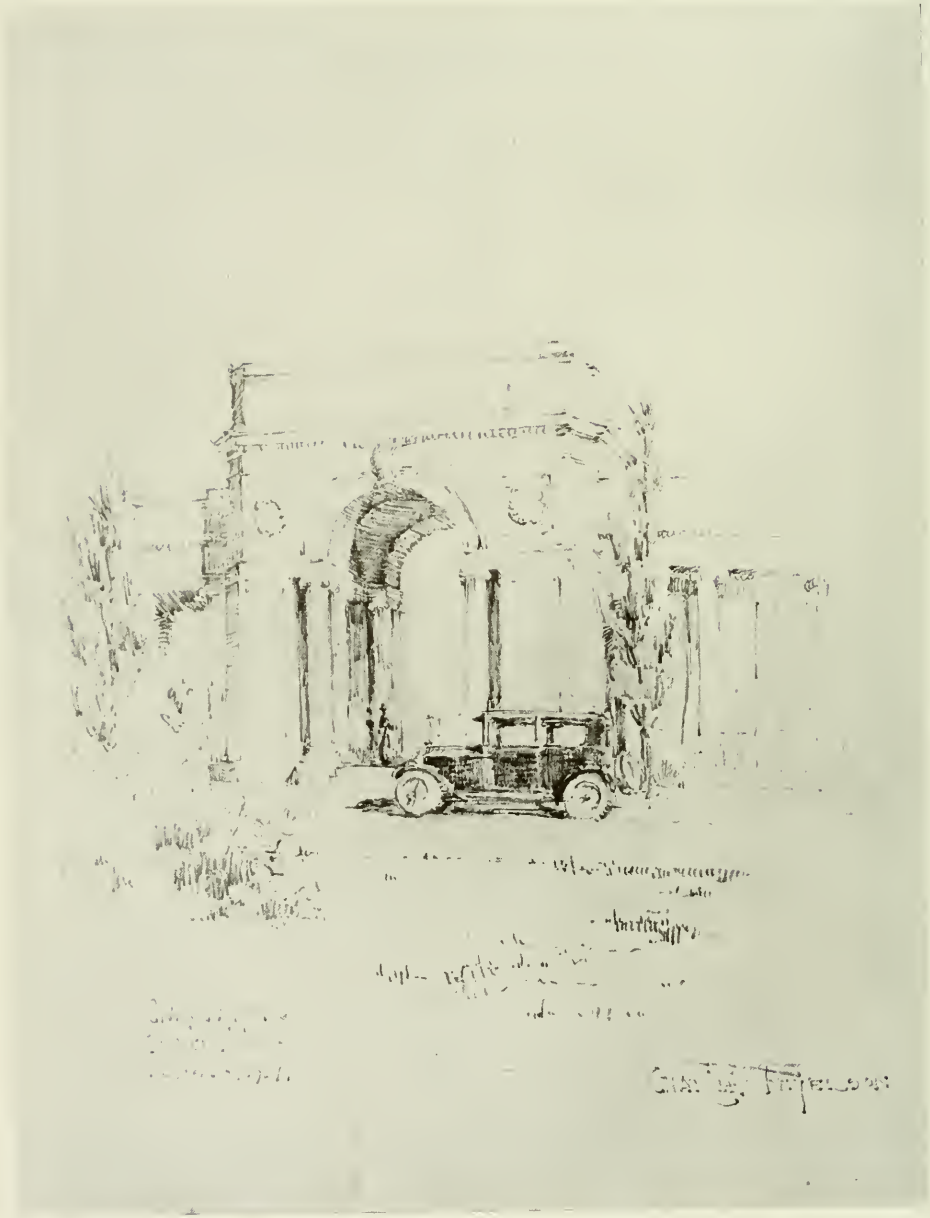
ST. MARKS SQUARE, VENICE

Venice is flanked by a long strip of land called the Lido, which serves as a barrier to protect the city from the heavy roll of the tide of the powerful Adriatic sea. Here you get the thrill of modern Venice and find many modern hotels, cafes and a large bathing beach.


THE PLAYFUL SIDE
of
ARCHITECTURE
SKETCHES & DRAWINGS
by
Charles E. Peterson
OLD HOUSE
ON GEARY STREET
SAN FRANCISCO

JACKSON LAKE AND THE GRAND TETON, WYOMING

L'EGLISE FRANCAISE, AN OLD CHURCH IN MINNEAPOLIS



VORHEES MEMORIAL ARCH, DENVER CIVIC CENTER

SWEDENBORGIAN CHAPEL, ST. PAUL, MINNESOTA
ONE OF CASS GILBERT'S EARLY BUILDINGS

THE COOKSHACK, TETON LODGE, IN THE JACKSON HOLE COUNTRY

SOME WAREHOUSES AND OTHER RECENT WORK OF F. EUGENE BARTON

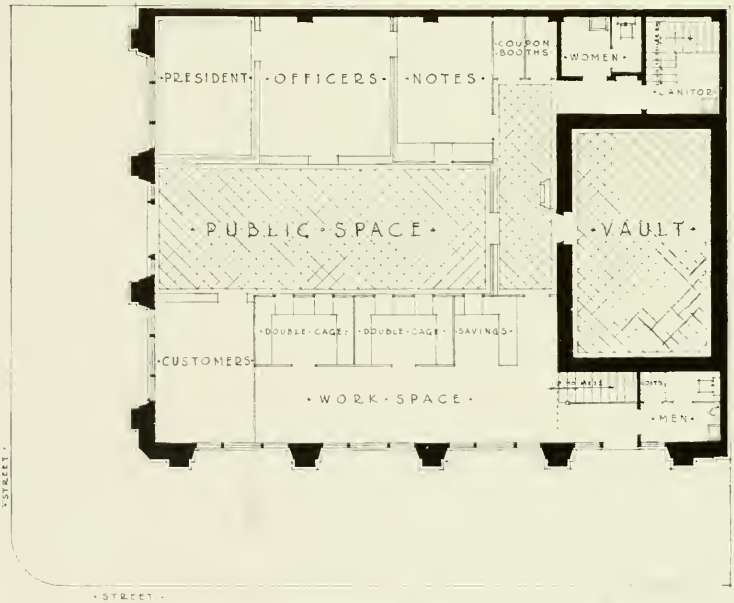
THE pictures and plans on the succeeding pages are typical of some of the recent work of F. Eugene Barton, architect of San Francisco. The First National Bank of Corcoran is economically and well planned to meet the requirements of a modern bank in a small city, embodying the latest and approved principles in design and equipment. The building, of reinforced concrete, is well lighted and ventilated, and is heated with a hot water system, a small basement being built to accommodate the boiler room. A mezzanine floor over the vault, and extending the full width of the building, contains a director's room with windows overlooking the main banking room. The cages are built of steel, the counters and screen of marble and bronze. The floor in the public space is rubber tile, and in the working space battleship linoleum. The walls are plastered with colored stucco and the ceiling beamed. The exterior is dignified and substantial looking, and expresses the stability of the institution housed within it.

The two buildings illustrated for the Bekins Van and Storage Company, one in Los Angeles and one in San Francisco, are the latest type of modern fireproof storage buildings, fully equipped and planned to give every normal convenience and service to patrons. Both structures are of the flat slab reinforced concrete type. All partitions are of fireproof material with steel doors and window sash. The buildings are protected with a detector fire alarm system. A large freight elevator and a passenger elevator provide transportation. The plans illustrated show only a typical floor for open storage. However, two of the floors contain private locked rooms, ranging in size to meet the requirements of particular customers. These rooms have metal lath and plaster partitions and steel doors. The building in Los Angeles, being located in a fast growing business district, contains stores on the ground floor and physicians offices on the second floor street fronts. This building also has a large cold storage vault for the safe keeping of furs and oriental rugs. The exterior is a striking example of modern architecture for industrial buildings.

The Blake, Moffitt and Towne building in Fresno is a concrete structure planned to house the branch office of this industrial concern. Besides the sales office, and shipping department there is a commodious garage. A work room contains paper cutting machines and scales. Goods are received from a spur track in the rear, and conveyed to the basement by means of a chute. A freight elevator runs from the basement to the first floor.

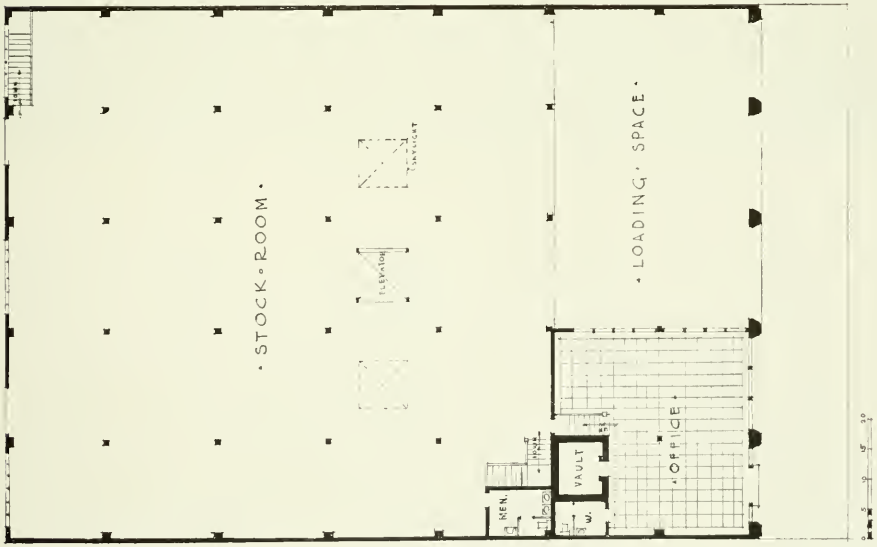
Chas. D. Vezey & Sons, Builders

FIRST CORCORAN SECURITIES BUILDING, CORCORAN, CALIFORNIA
F. Eugene Barton, Architect



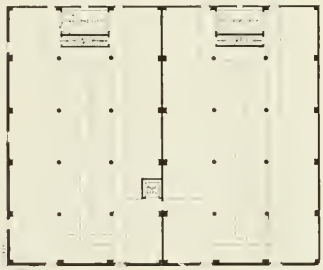
PLAN, FIRST CORCORAN SECURITIES BUILDING, CORCORAN
F. Eugene Barton, Architect

BLAKE, MOFFITT & TOWNE BUILDING, FRESNO
F. Eugene Barton, Architect



PLAN, BLAKE, MOFFITT & TOWNE BUILDING, FRESNO
F. Eugene Barton, Architect

ADDITIONS TO BEKIN'S STORAGE WAREHOUSE, SAN FRANCISCO
F. Eugene Barton, Architect



PLAN, BEKIN'S WAREHOUSE

OAKLAND OFFICE BUILDING

[Concluded from Page 37]

and carry ropes. They move abreast of the clipper's forefoot; they are still under the shadow of that great romance of the sea—the sailing ship. The eagle and the Indian figure-heads of those ships express symbolically the thought of dominion and their nationality. The left four men are again sailors, interpretative of the modern purpose of united cooperation and aim. The rope they carry is suggestive of an unbroken bond.

THE O'CONNOR-MOFFATT DEPARTMENT STORE BUILDING

SAN FRANCISCO

By Fred'k W. Jones

ALONG with the modern trend of things it is but natural there should be radical changes in present day department store requirements. It is interesting to note that the architect of the new O'Connor-Moffatt building, San Francisco, has anticipated these needs, and furthermore, has planned generously for the future. Fully a half dozen years' survey and study on the part of the owners, the architect, Mr. Hobart, and the construction manager, Mr. Whitton, are represented in the realization of this great building. It has no prototype west of Chicago. Gothic in influence, the beauty of the design shows a fine appreciation and understanding of the two great essentials in a building of this type—good architecture and ample provision for commercial needs. The street facades, dignified and practical, reflect, as they should, the mercantile character of the interior.

The O'Connor-Moffatt building is a daylight store above the first floor, in an extent and to a degree equalled by few, if any, of the large department stores of this country. It is a free standing building with east, west and south walls exposed to the sky.

On the first floor recognition has been given to the fact that outside light, over the fixtures, is a detriment to successful selling, and the exterior walls of the first floor are developed with handsome ornamental display boxes, electric light only being relied upon for the service on this floor.

The new building occupies ten floor levels. The entire mechanical plant, boilers, steel coil compressors and switch boards, are placed in the sub-basement, 50x 137 feet. This not only permits the desired floor area, but it leaves all the main floors of the building free and clear for merchandising. Other arrangements of the building, such as air ducts, toilets, and stairs, are distributed along the north wall of the building so that on every floor the entire area is one unbroken and unseparated unit. The result is the maximum utilization of all area and the greatest possible flexibility in arrangement and layout.

The problem of expansion is one that department stores must keep definitely in the fore. A study of the surrounding properties developed the fact that if lateral expansion ever took place, it was scarcely possible to consider expansion in a northerly direction. The value of the Butler Building and the placing of its stairs and elevators, together with the difference of levels, arising out of the grade on Stockton street, made expansion in a northerly direction a thing scarcely to be hoped for. In laying out the store, therefore, the architect and engineers decided to provide for a possibility of future lateral expansion in a westerly direction on O'Farrell street. A battery of eight high speed, modern Spencer-Westinghouse elevators for passengers, and two similar freight elevators, were placed along the north wall, and the freight elevators were so placed that in times of

great customer congestion, such as holiday seasons, they could be immediately thrown into the passenger service.

A comparative study of department stores throughout the country developed the fact that customers are served more rapidly, comfortably and satisfactorily by an express system. This avoids all congestion and crowding of customers who desire at the same time to get in and out of an elevator. The four easterly elevators will therefore bring customers down only, and the four or six elevators on the westerly end will take customers up only.

The new building has 245,000 square feet of floor area and it is believed in the effective use of floor space and the accommodations secured by a highly efficient plan, the floor area of the old building has been doubled. Furthermore, through the wise foresight of the owners of the building, the columns of the old structure were reinforced and all new steel work was put in, so that when it becomes necessary, the entire building may be raised two stories and the westerly 50 foot strip on O'Farrell street can be carried two stories above this level.

The new location of O'Connor-Moffatt & Co. is unique among department stores in that it has no secondary street, alley or point of rear access. The entire area of the building is on major traffic streets. The problem of handling incoming and outgoing merchandise was solved by a chute at the sidewalk line, which drops merchandise onto an automatic, moving sidewalk, and this sidewalk carries the merchandise directly to the rear of the building, close to the freight elevators. As this moving sidewalk serves both as a delivery truck and as a storage area, it has completely solved what might otherwise have been a very serious problem in the administration of the store.

TYPICAL FLOOR, O'CONNOR-MOFFATT BUILDING, SAN FRANCISCO
Lewis P. Hobart, Architect

The handling of outgoing merchandise to customers' homes is taken care of in the following manner: Under the first floor are conveyors which take the customers' parcels from the salesroom on the first floor and carry them to the delivery room. A spiral chute running from the top to the bottom of the building takes the parcels from the various floors and delivers them automatically to the same delivery room. they go to a remote sorting and delivery department, where they are routed for different sections of the city.

The ground floor of the building, sometimes called a basement, but for which the company has in this building adopted the name of "thrift floor," is supplied with air brought from the roof, which is first cleaned after being passed through oil curtains. It is then brought to the desired tem-

ELEVATOR SERVICE, O'CONNOR-MOFFATT BUILDING, SAN FRANCISCO
Lewis P. Hobart, Architect

In the delivery room all of these parcels are assembled at one point automatically by moving belts which bring them alongside the wrappers' desks. After being wrapped, the wrapper throws them back to another moving belt, which carries them automatically to the point of departure from the building. All of this service is high speed, automatic, and involves no reverse movements of any kind. Packages move direct from their point of origin to their point of departure. When they leave the building perature by passing through steam coils and then delivered to the thrift floor in the volume necessary to keep the air pure, fresh and clean at all times.

One primary problem that confronts the modern department store is the necessity for elaborate and complete electric service, and the experience of department stores has been that no matter how much equipment of this kind is available, they invariably fall short of requirements. For this reason an electrical "mattress" has been placed under

the entire floor area of each floor, so that if additional service is required at any point on any floor, the supply is there. It is similarly true that the general illumination of the store must provide for the constant rise in the standard of quantity. For this reason the general illumination of the store has been provided to an extent which approximately doubles ordinary standards of illumination.

For the immense flow of many documents and messages through the store, an elaborate pneumatic tube system has been supplied, which transmits messages from the point of origin to the point of delivery through a completely equipped and modern dispatching tube station located in the basement.

For telephone communication throughout the store, and for the best possible service to the customer, two completely distinct systems have been installed. Internal communication within the store is entirely conducted through a separate, automatic exchange, which has no connection whatever with the switchboard which serves the public.

ELEVATOR LOBBY, O'CONNOR-MOFFATT BUILDING, SAN FRANCISCO
Lewis P. Hobart, Architect

Dinwiddie Construction Company, Builders

PERSPECTIVE, O'CONNOR-MOFFATT BUILDING, SAN FRANCISCO

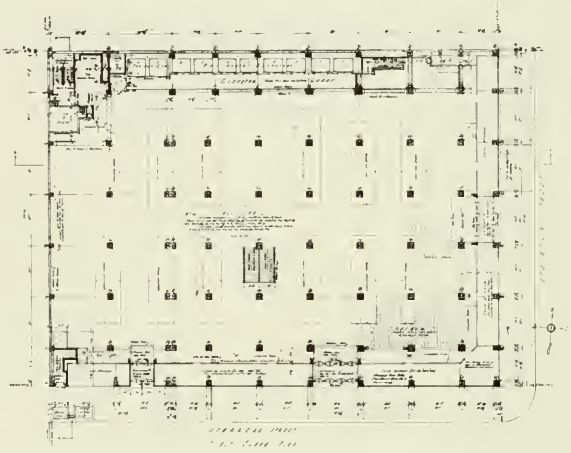
LEWIS P. HOBART, ARCHITECT

Photo by Moulin

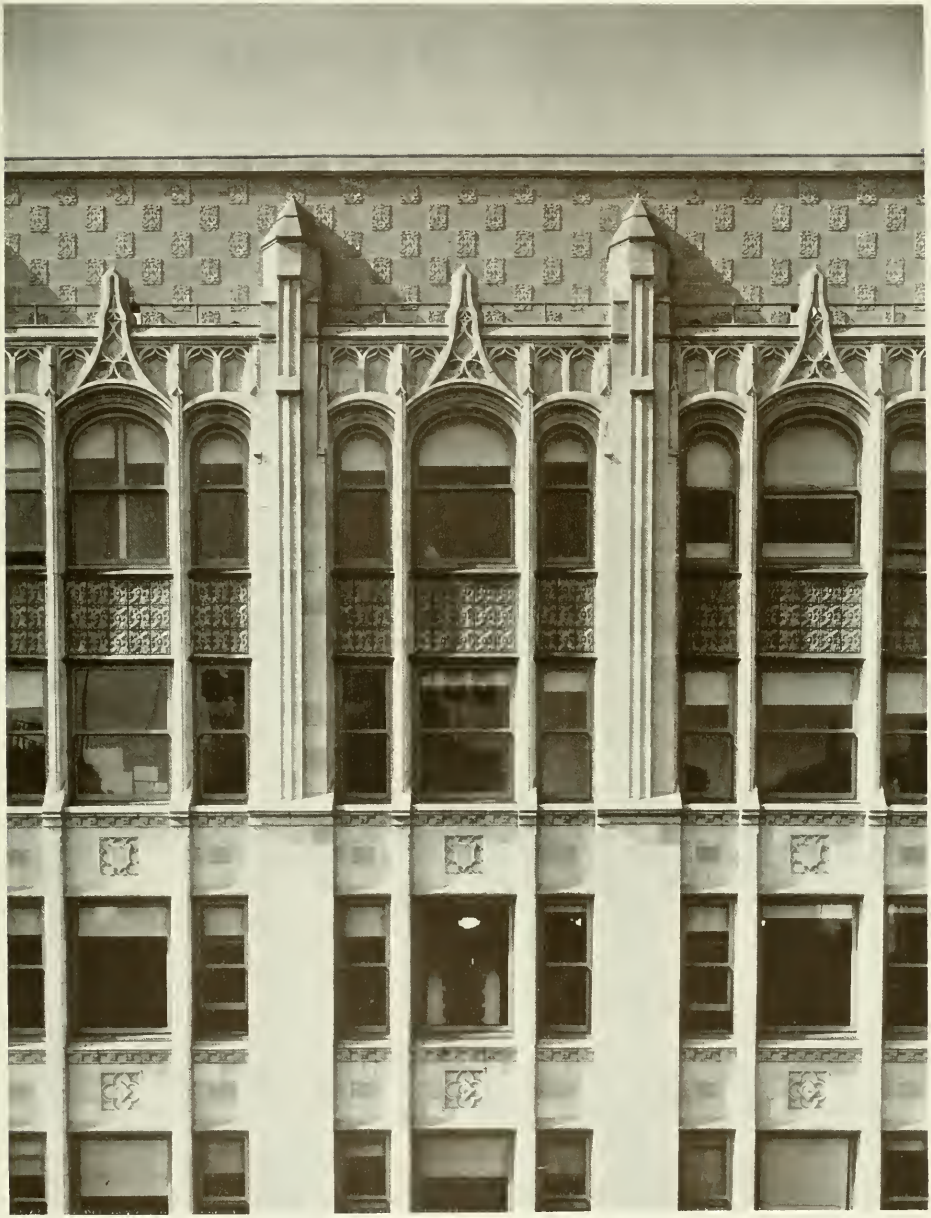
T. Ronneberg, Structural Engineer

O'CONNOR-MOFFATT BUILDING, SAN FRANCISCO

LEWIS P. HOBART, ARCHITECT



FIRST FLOOR PLAN, O'CONNOR-MOFFATT BUILDING, SAN FRANCISCO
LEWIS P. HOBART, ARCHITECT



DETAIL OF UPPER STORIES, O'CONNOR-MOFFATT BUILDING, SAN FRANCISCO
LEWIS P. HOBART, ARCHITECT

Photo by Mott Studios

TITLE INSURANCE OFFICE BUILDING, LOS ANGELES

JOHN AND DONALD B. PARKINSON, ARCHITECTS

Photo by Mott Studios

DETAIL OF ENTRANCE, TITLE INSURANCE BUILDING, LOS ANGELES

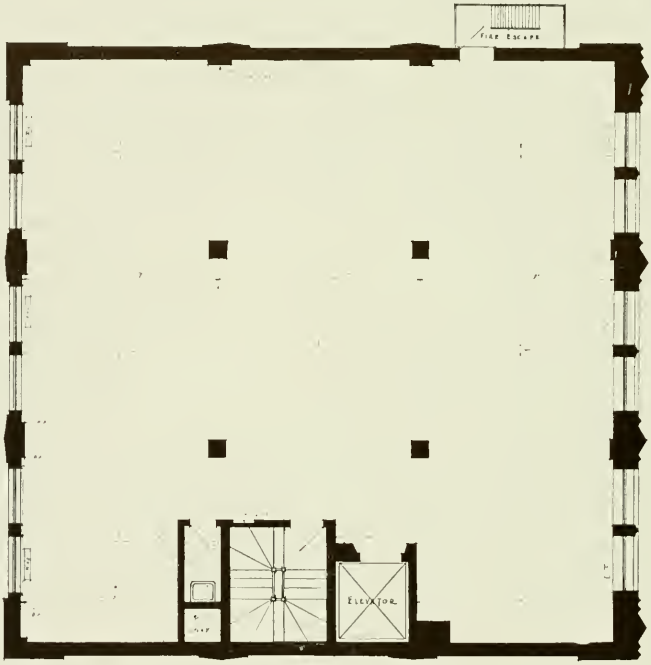
JOHN AND DONALD B. PARKINSON, ARCHITECTS

Photo by Mott Studios

DOOR, TITLE INSURANCE BUILDING, LOS ANGELES

JOHN AND DONALD B. PARKINSON, ARCHITECTS

DETAIL OF ENTRANCE, INCOME SECURITIES BUILDING, OAKLAND
FREDERICK H. REIMERS, ARCHITECT



TYPICAL PLAN, INCOME SECURITIES BUILDING, OAKLAND
FREDERICK H. REIMERS, ARCHITECT

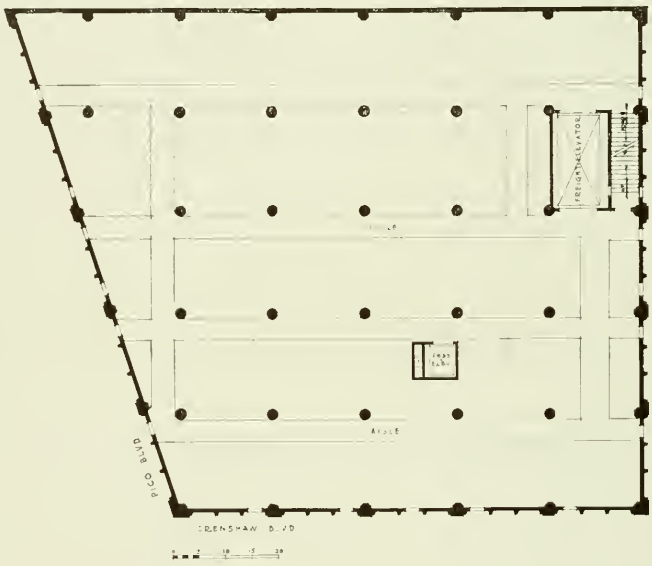
DETAIL OF LOWER STORIES, INCOME SECURITIES BUILDING, OAKLAND
FREDERICK H. REIMERS, ARCHITECT

LOBBY, INCOME SECURITIES BUILDING, OAKLAND
FREDERICK H. REIMERS, ARCHITECT

Photo by Mott Studios

BEKIN'S STORAGE WAREHOUSE, LOS ANGELES

F. EUGENE BARTON, ARCHITECT



PLAN, BEKIN'S STORAGE WAREHOUSE, LOS ANGELES
F. EUGENE BARTON, ARCHITECT

RICHFIELD GAS STATION, TUNNEL ROAD, BERKELEY, CALIFORNIA
W. R. YELLAND, ARCHITECT

Photo by Padilla Company

HOUSE OF MR. AND MRS. JAMES E. BUCHANAN, PALOS VERDES, CALIFORNIA

KIRTLAND CUTTER, ARCHITECT

AWARDED FIRST MENTION AS MOST NOTABLE EXAMPLE OF ARCHITECTURE IN PALOS VERDES ESTATES IN 1928

SOME WHYS AND HOWS OF A CITY PLAN

By: J. W. Gregg
University of California.

A CITY plan is a chart to steer the municipal ship. It guides the rapidly growing city, and keeps it off the rocks of misdirected and ill-considered development. It prevents in the future the mistakes of the past, and relieves the trouble caused by those mistakes.

It is a clearly defined program not for spending more money, but for using more effectively the funds available each year for city developments. A city plan forsees coming needs, and plans in advance to meet them. It prevents overlapping, and weaves together all phases of the city's physical growth into one harmonious whole. It is the clearing house for the betterment ideas of not only all efficient city officials, but citizens as well. It preserves a continuity of policy for years to come, to the extent that the city's growth is made orderly and sound. A city plan is a good business investment, its cost being saved many times over as the years go by.

A city plan reduces the costs of handling foodstuffs, building materials, and all other commodities, by providing shorter and better routes in the form of a definite street and transit layout. A city plan should reduce taxes in many ways, but partially through the development and use of land now unused or improperly used, thereby increasing total tax valuations and proportionately reducing tax rates. A plan should create more efficient industrial districts, not only by providing proper locations for all classes of industry and manufacturing, but by furnishing proper public utilities, such as water supply, fire protection, sewerage disposal, and adequate, well-paved streets. A plan should make it possible to reduce the cost to the city of public improvements through changes in laws, and by following better methods of financing improvements.

It has been said there are two principal methods of education:—one where we learn by our own experiences, and the other, from the example or experiences of others. Perhaps one of the best ways, therefore, to be convinced of the value of a city plan is to observe the results for which it has been responsible in other cities.

In Detroit, in accordance with the recommendations of the city plan, 80 miles of streets are being opened or widened, and in addition, an outer drive 150 feet wide and 46 miles long is being created about the city. Seven parks totaling 1744 acres are being acquired, 18 playgrounds with a total of 158 acres, and an aviation field with 320 acres are being added, 70 subidivisions have been made to conform to the City Plan, a zoning ordinance is being passed, and a new city hall is imminent. The larger part of the cost of local improvement is being borne by abutting and nearby property owners. A complete thoroughfare system for the whole city has been laid down, and each new subdivision has to conform to it.

Numerous cities and towns have already adopted zoning ordinances, and several hundred more are now in the process of drafting them.

Each of the 16 largest cities in the United States have already carried out important replanning operations in their

congested districts in conformity with city planning recommendations.

A good comprehensive city plan can never be the result of a haphazard or superficial study of the elements involved, but must be the product of a clear cut and definite program which takes into consideration various phases, such as circulation, housing and industrial restrictions, educational and recreational systems, and numerous other elements of equal importance. In each case these must form the various "chapters" so to speak, under which all the facts must be collected, in order to determine, first, the physical elements that are adequate for the present and the future; second, those that are adequate for the present but not for the future; and third, those elements that are inadequate even for the present.

This all sounds simple, so much so that the whole subject of a city plan has in many cases been only superficially considered by the great majority of our citizens, and little real hard study or effort has ever been made to produce results.

In the study of a city plan in one eastern city, over sixty different maps were made, in order to record and show clearly the true facts and existing conditions.

A practical city plan cannot be intelligently prepared today without the study and preparation of many maps showing:

1. Topography.
2. Distribution of Nationalities.
3. Distribution of Population.
4. Regional Population.
5. Unit Land Values.
6. Markets.
7. Built-up Areas.
8. Location of Industries.
9. Speed Diagrams.
10. Vehicular Traffic Graphs.
11. Existing Thoroughfares.
12. Thoroughfare Improvements.
13. Jogs in Streets.
14. Street Extensions.
15. Property Affected by Recommended Thoroughfares.
16. Land Subdivisions.
17. Dead End Streets.
18. Narrow Streets.
19. Routes of Traction Lines.
20. Interurban Routes.
21. Street Car Traffic Diagrams.
22. Street Grades.
23. Typical Cross Sections.
24. Public Service Cooperation Lines.
25. Area Served by Water Mains.
26. Area Served by Sewer Mains.
27. Garbage Collection Areas.
28. Street Cleaning.
29. Street Lighting.
30. Location of Public Buildings.
31. Schools and School Districts.
32. Cultural and School Facilities.
33. Recreation Facilities.
34. Juvenile Delinquency.
35. Playground Areas.
36. Park Areas.
37. Public Property.
38. Historic Spots.
39. Housing Conditions.

This list is by no means complete, but suggests briefly the extensive field that must be covered in great detail if final conclusions and practical recommendations are to result in a city plan that will meet the needs of a growing municipality.

The studies for a city plan do not end by determining these various phases, but continue in even more detail; for example, the study of the thoroughfare system must receive detailed consideration as follows:

1. A complete traffic census of the whole city.
2. A comparison of the results of this census with those taken in previous years, if such exists.
3. Comparisons of the number of vehicles which visit typical districts with the population in those districts.
4. Future population estimates and distribution.
5. Comparisons of the number of vehicles which visit typical districts with the future population distribution.
6. Determination of the number of vehicles originating at freight stations and other similar points.
7. Estimates of the probable vehicular flow on main and secondary thoroughfares in the near future.
8. Determination of points of origin of suburban travel entering and leaving the city.
9. Probable future growth of such travel based on state highway observation.
10. Determination of zones of street activity.
11. The laying down on a series of maps systems of radials from the center of each such zone.
12. The correlation of these theoretical radials with the present street system.
13. The approximate location of existing gaps in the systems of radials and circuit roads.
14. The study of the systems with relation to the topography, present building improvements, real estate values, lot units, and other factors.
15. The determination of the necessary widths of the streets so established on the basis of probable future needs.
16. The correlation of the street studies with the zoning map.
17. The introduction of additional secondary thoroughfares to facilitate access to areas aggregating more than one-quarter square mile.
18. The determination of those streets that could best be used for trolley lines, bus routes, or exclusive private passenger vehicular traffic.
19. The determination of points where streets could be straightened and jogs removed, grades improved, cut-offs made, grade crossings eliminated, and other minor changes made to good advantage.

The great majority of people do not realize that a city plan is made up of numerous complex units or elements, and that the problems of each are interdependent one

upon the other for adequate solution. As an example of how some of the various map studies previously listed are made to serve an apparently foreign phase:

1. Compare the net usuable area of each existing playground, park play space, and school playground with the Population Spot Map, and knowing the proportion of children 12 years of age, to the total population in each block front, and knowing the amount of space needed per child in each playground for effective play, it is practicable to compute fairly accurately the area now well served by each playground.

2. Compare the areas not served by the existing playgrounds with the unimproved property maps and the Unit Land Value Maps to show with'n each quarter mile radius where there is the largest area of usable, unimproved land for the lowest price.

3. At the same time study the Thoroughfare Map and the Zoning Maps so as to keep playgrounds off of the main thoroughfares, and in residential districts where they will not be choked by stores or factories now or in the future.

4. Study the Contour Map to show how to avoid sites which might prove too steep for practicable use.

5. Compare with the School District Map to show the possibilties of combining such playgrounds with existing or desirable school sites.

If it is impossible otherwise to find proper sites for new playgrounds or for the extension of existing ones, it may be desirable to search for deep blocks with a view to using the central relatively unimproved portions of some such blocks as neighborhood playgrounds.

The next question is the size of new playgrounds, and to that end the following method may be used:

1. The Population Spot Map should be expanded to show one dot for each 25 people, and then a careful study should be made, based on the population growth curve, the proposed thoroughfare, traction and zoning maps, to see just how the population could reasonably be exptcted to be distributed 25 or even 50 years hence.

2. A similar study should be made of the distribution of growing real estate values.

3. These various studies should be compared with the school expansion program outlined above, and with the parks, parkways, and zoning program. This would show approximately how many children between the ages of 5 and 12 years would have to be taken care of by each playground 25 or 50 years hence.

4. Allowing about 300 children per acre between these ages as a limit for effective play, it would be practicable to determine with a fair degree of accuracy the acreage as well as the location of each playground needed for 50 years to come.

This same data could also show the approximate date at which each property should be acquired, and put into use in order to keep up actively with the demand.

The same method can be used for a detailed study of a park system as follows:

1. The Population Spot Map should be made to show the distribution of population 25 or even 50 years hence as encouraged by the city plan.

2. A study of the Unit Land Value Distribution Map as corrected by the growth of property values curve will show where the largest areas could be secured for the least cost when compared with the Topographical Map.

3. A study of the Zoning Map would show how the parkway system could be centralized in permanent residence districts.

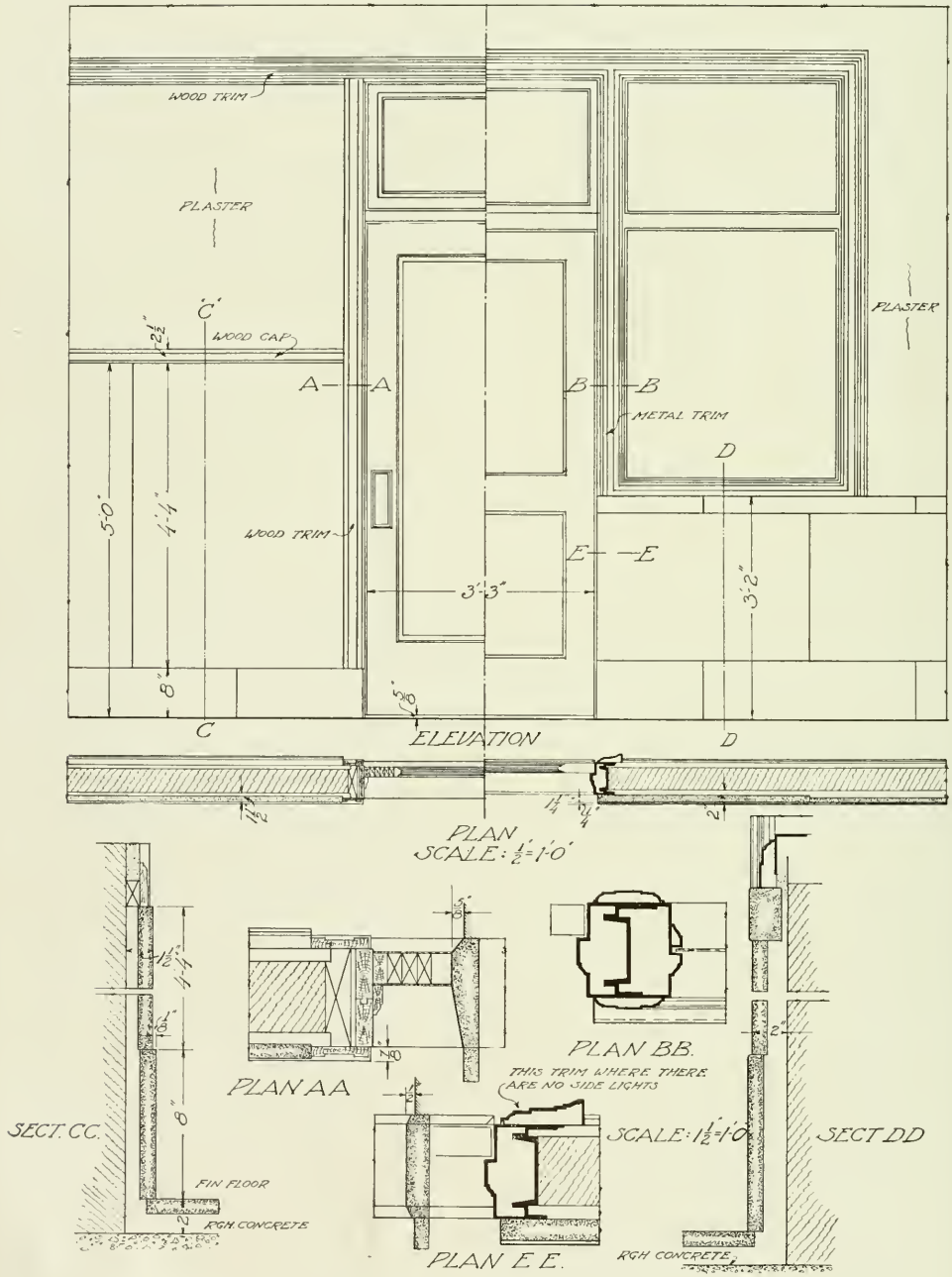
4. A study of the thoroughfares, traction, and transportation maps would show how to keep the park system from usurping key land essential to the proper economic development of circulation.

5. A study of the Historic Site Map and of the present and eventual distribution of public buildings map would make it possible for the park system to set off public buildings and historic sites.

In particular, for each tract chosen as a part of the park and parkway system, an economic study should be made with a view to making each portion of the system pay for itself as far as practicable. This means a study of the exact location and limits of each tract to see how they can be shifted or adjusted so as to bring the maximum enhancement of surrounding properties which might be created by the park and parkway layout, all consistent with the most useful and attractive layout of the park property itself.

Next month we shall discuss the various phases of zoning which have an important bearing in this city plan.

CORRIDOR TREATMENTS FOR OFFICE BUILDINGS



Courtesy Vermont Marble Company

DETAILS FOR MARBLE WAINSCOTING IN OFFICE CORRIDORS

THE REVIVAL OF FRESCO

By

Simeon Pelenc

AS LONG as walls are finished in plaster, fresco will always be the most appropriate way of ornamenting them. The word plaster means here: coating of cement and sand or lime and sand, as the term is commonly used in this country, but never to mean gypsum or plaster of paris.

As is well known, to fix a color on a surface, a medium is necessary. Linseed oil is the medium for oil painting; egg (either the yoke or the white or both together) is the basis for tempera; in water colors gumarabic is used. There is also wax painting, milk painting, etc. But in fresco the medium is the fresh plaster itself. This contains a large proportion of iron oxyde which crystalizes with the the contact of the air.

The magnificent flowing hues seen in marble indicate clearly that this hard mineral was originally in a fluid state thousands of years ago; incidentally while still underground, this fluid also containing iron oxyde, came in contact with heat, fire, air or other elements and hardened to the point that it is found in the quarries today. The same chemical action occurs when the mineral colors of fresco painting are drying together on the plaster freshly applied; therefore, we may say that the surface of fresco painting is a film of marble. Like marble, it is washable, uneffected by change of temperature from the dampness of rain or heat of the sun.

The front exterior of the San Rafael hospital, San Rafael, California, simple as it is, is a good example of the possibilities of applying an appropriate decoration where cast ornaments, mouldings, etc., would have changed the beautiful simplicity of the lines. It is amazing when one thinks of these three windows as having been decorated on the same day.

The possibilities of fresco for interiors are endless. From the kitchen to the bathroom, from the hall to the dining room, ceilings and walls may be painted in fresco either plain or ornamented. When hot water faucets are running, the kitchens and bathrooms are invariably moist with steam which clouds the rooms. Rivulets of water run down to the baseboard. All this is impossible when the walls are frescoed because of the absorption. Walls remain absolutely dry.

MANTLEPIECE IN FRESCO AND SGRAFFITI
William I. Garren, Architect
Simeon Pelenc, Decorator

Fresco is so highly decorative that a panel on a mantel, a lunette over a door, or a frieze of reasonable size will be sufficient to give the room an architectural feel-

LOBBY OF APARTMENTS AT 55 HERMANN STREET, SAN FRANCISCO
Murals in Fresco on Wet Mortar and Gold by Simeon Pelenc

"THE OVERLAND EXPRESS," A PANEL REMINISCENT OF PIONEER CALIFORNIA DAYS. FRESCO ON WET MORTAR BY SIMEON PELENC

ing not obtainable with any other medium. The reason for this is that fresco is a part of the room itself, and therefore, architectural.

It is possible to spray or apply fresco colors on any texture, even on a very jazzy surface without altering it. But a house is not a bowling alley, and the owner of good taste will always prefer a sand finish and a soft floating to sticky products commonly

LOBBY OF APARTMENTS AT 55 HERMANN STREET, SAN FRANCISCO
Murals in Fresco on Wet Mortar and Gold by Simeon Pelenc

"INDUSTRY AND FINANCE." AN INTERESTING PANEL REFLECTING THE MODERN TREND. FRESCO ON WET MORTAR BY SIMEON PELENC

used as plastic paints and which are an insult to the wall itself.

So far, it is encouraging to note that the movement begun in these columns a few years ago, has developed the most promising results. Contracts specifying fresco on fresh plaster have been awarded by a number of our leading architects, and the future of fresco painting, just emerging from its infancy, appears most promising.

SAN RAFAEL HOSPITAL, SAN RAFAEL, CALIFORNIA
Note Window Decorations in Sgraffiti

ENGINEERING

and

CONSTRUCTION

HETCH HETCHY POWER TRANSMISSION LINE
TOWERS 208 FEET HIGH, AT CROSSING OF
SAN JOAQUIN RIVER, CALIFORNIA

Featuring

The Hetch Hetchy Project

The HETCH HETCHY WATER PROJECT NEARS COMPLETION

By: M. M. O'Shaughnessy.
City Engineer, San Francisco

SAN FRANCISCO'S development of a mountain water supply for an ultimate population of four millions has passed another milestone in the completion of driving a 16 mile tunnel of the Foothill Division, one of the main sections of the 167 mile aqueduct which will bring pure water of the Sierra Nevada streams to the city dweller. Work is actively under way on the last tunnel 29 miles long through the Livermore hills, east of San Francisco Bay, and it is predicted that in 1933 the aqueduct will be completed and in full service.

The tunnel just finished will receive the water discharged from the water-wheels of the Moccasin power house, 900 feet above the sea, and instead of allowing it to waste back into the Tuolumne river as at present, will bring it by closed aqueduct on its way to San Francisco.

Leaving Moccasin, the tunnel extends westerly 5 miles to the Tuolumne river at Red Mountain Bar, one of the old placer gold diggings, famous in the 60's. Here the aqueduct, a pipe laid in a trench blasted out of the bedrock of the river, dips under the channel and rises on the other canyon wall to again enter the tunnel which continues 11 miles to the edge of the San Joaquin Valley.

The driving of the westerly portion of the tunnel was lifted from the usual prosaic although strenuous level of such work by an exceptionally keen rivalry between the miners employed by a contractor and those employed by the city under the direction of City Engineer O'Shaughnessy. City forces began driving tunnel at the seven different working points, two of which were were shafts sunk from the surface to the tunnel level so as to facilitate and ex-

MOCCASIN POWER HOUSE, CLUB HOUSE AND COTTAGES

DUMBARTON PIPE BRIDGE, HETCH HETCHY AQUEDUCT

pedite the tunnel excavation. When this work had progressed sufficiently to indicate what the underground conditions would be, bids were called for and contracts let for tunneling operations from three of the seven camps. The race for progress then began between the city's forces and the contractor's crews. In 1921 in the Mountain Division tunnel, the United States record of 776 feet of tunnel driven from one heading in one month had been made, but this record fell twice before the city's day labor crews at Hetch Hetchy Junction, the best progress being in the 29 working days of September, 1927, when they advanced the tunnel in one heading 803 feet.

Tunnel work began in January, 1926. The eleven miles of tunnel west of the Tuolumne river had been driven by April, 1928, and crews had begun lining the bore with concrete, but the five mile portion east of the river presented an unexpected difficulty in the existence of seams in the rock, carrying large amounts of water under heavy pressure. At one point 1700 feet beneath the surface of the ground and at a distance of almost two miles from the tunnel entrance, the miners' drill holes pierced seams carrying 700 gallons per minute at a pressure of 380 pounds per square foot. The time consumed in shutting off these water jets diminished the time that could be used for driving tunnel, the delay during one year amounting to 65 days. To work through these shattered zones the miners drilled a series of holes, sometimes 25 feet deep, around the perimeter of the tunnel and by means of compressed air pressure up to 625 pounds per square inch, forced cement grout into the seams through the holes until no more could be forced in. The cement set hard, filling the seams so that drilling and blasting could be resumed. In one zone of shattered rock 10 feet thick 66 holes were drilled for grouting and over 30 tons of cement grout were forced through them to fill the seams and shut off the water flow.

However, perseverance conquered. In December, 1928, the last rock was shot out, the miners saw their work complete and the engineers had the pleasure of seeing their lines from the east meet the lines from the west, with an error of less than one inch in alignment and one quarter inch in grade. The placing of concrete lining 6 inches thick on the walls and bottom of the tunnel will take about six months.

Of the 16 miles of tunnels, seven miles are being lined with concrete, while the remainder consisting of substantial rock will have but the rough edges of rock as a containing shell. The smoothly lined tunnel is 10 ft. 3 in. by 10 ft. 3 in. with arched top and vertical sides. The unlined tunnel is of practically the same shape but is 14 ft. by 3 in. high and 13 ft. 4 in. wide, with practically double the sectional area. The greater size of the latter compensates for frictional losses in capacity for carrying water. The tunnel will flow full of water under a light pressure.

An interesting feature of the work was the construction and operation of a cableway spanning the canyon of the Tuolumne river at Red Mountain Bar to carry men and materials to a tunnel camp which hitherto had been accessible only by a long, circuitous mountain road on which motor trucks labored over a pass 1100 feet higher than the camp. The main cable 2¼ inches in diameter which has a breaking strength of 210 tons, has a span of 2295 feet across the river and is capable of carrying a load of five tons.

Water supply for the same camp is

MOCCASIN POWER PLANT OPERATORS' COTTAGES
Constructed of Concrete and Tile, Electrically Heated and Lighted

brought across the river in a pipe hung from a cable suspended from cliff to cliff across the canyon.

While the Foothill tunnels have been approaching completion another tunnel, the final one on the system, has been started. This is the Coast Range, 28.6 miles long, cut into two sections, one of which is 25 miles long, by the valley of Alameda Creek, which will be crossed by a steel pipe line. This tunnel pierces the hills south of Livermore and Pleasanton between the San Joaquin Valley and Santa Clara Valley, passing south of the Corral Hollow coal field. At one point it is 2400 feet below the ground surface.

Five shafts, the deepest of which is 818 ft., have been sunk along the tunnel line and tunnel is being driven both east and west from the bottom of each shaft, with the expectation of completing the aqueduct construction in four years. So far, nearly two miles of tunnel has been driven.

This portion of tunnel is on a flatter grade than the Sierra tunnels hitherto constructed and although of the same sectional area will carry only half of the volume of water that the others do. At some indefinite future date a similar parallel tunnel will be completed 175 feet south of and parallel to the initial tunnel, so to provide the engineers of the coming generation a ready means of driving it, the construction shafts available for both tunnels are now being lined permanently with concrete.

The design of the equeduct is based on an ultimate delivery of 400 million gallons daily. The 10 ft. 3 in. diameter tunnels

HETCH HETCHY RESERVOIR

This structure is seven and one-half miles long and has a capacity of sixty-seven billion gallons

already completed on a grade of .00155 will carry that quantity but in the Coast Range the flatter grade necessary would require a tunnel 13 ft. in diameter or two tunnels of 10 ft. 3 in. diameter. On comparing the cost of a 13 ft. tunnel with that of a 10 ft. 3 in. tunnel now plus the discounted cost of a second parallel one to be in San Mateo County. This latter is the principal reservoir on the San Francisco peninsula of the Spring Valley Water Company's system for the purchase of which the city has authorized a bond issue of $41,000,000. The completion of the Hetch Hetchy system four years hence will represent an investment of almost $80,000,-

LAKE ELEANOR DAM, HETCH HETCHY PROJECT
The buttressed arches are 1,260 feet long and 70 feet high

constructed many years in the future, it is evident that the dual construction is the more economical by at least $5,000,000.

When the construction of the present tunnels shall have been under way for about two years, work will be commenced on laying pipe across the San Joaquin Valley, so that the pipe and the tunnel may be completed simultaneously, thus providing continuous aqueduct from Hetch Hetchy and Lake Eleanor to Crystal Springs reservoir 000 additional. The sale of power produced at Moccasin Power House gives the city an annual net income of $2,000,000 which is 4½ per cent on $45,000,000. The combination of local sources and mountain supply, with ultimate development of the latter, assures San Francisco sufficient water for five million inhabitants.

Design and construction of all elements of the Hetch Hetchy project are under the supervision of the writer.

The Architect's Budget

ARCHITECTS in the United States are receiving fees of not less than $80,000,000 a year, it is estimated by Edwin Bergstrom of Los Angeles, treasurer of the American Institute of Architects.

"I have not the slightest doubt," Mr. Bergstrom declares, "that more than ten per cent of this sum is wasted annually by the architect in his own offices through neglect and failure to apply sound business methods."

Discussing the archiect's budget, he calls standardization of architecture an abomination, but urges standardization of procedure and accounting of the business of architecture as very helpful to success.

"Orderliness in design," Mr. Bergstrom says, "is axiomatic with the architect; orderliness in his business and in his time is not so fixed a virtue.

"Architecture is a busy profession. Without doubt there enter into it more of business and detail of business administration than enter into any other profession. It is not a true profession in the sense that the other fine arts are professions.

"The musician, painter, and the sculptor create with their own hands their finshed art, but the architect would make a sorry show if he should build his dreams. Of all professions, he alone must depend upon others to give form and substance to his art.

"Architecture is further differentiated from the true professions. The architect creates his art to satisfy a definite need; the sculptor and painter to satisfy their own imaginations. There must be definite need for his creation before the architect can

EARLY INTAKE DIVERSION DAM ON TUOLUMNE RIVER

This dam, with concrete arch 270 feet long, is twelve miles downstream from Hetch Hetchy. Waters from Lake Eleanor and Hetch Hetchy commence their 156 mile trip to San Francisco from this point

begin his work of art and simultaneously there must be furnished money, with and within which the architect must work.

"Architecture is a collaborative profession; a coordination of efforts to create a work of art to fulfill a definite need within a definite cost. The mind of the architect must interpret the need from another mind, apply it to his imagination, translate the concept to other minds and direct still other hands to give it form and substance and make it fulfill the need for which, and satisfy him for whom, it was created.

"There are still a few architects who can practice architecture in its simplest terms, and how delightful that is. But a civilization so complicated as ours, so essentially urban in its thoughts, requires for its comfort, if not for its needs, so many material things that a superman could not be expected to have knowledge of them all.

"Yet the architect must know and coordinate all these material things and bring about a synchronized collaboration of the trades in order that each will be properly incorporated in his conception.

"With myriad responsibilities and duties, the architect must conduct a business, no matter how much he desires to suppress that idea. How he conducts it will be the gauge of his business standing.

"Generally he gives his time so freely to others that he has little of it left for the intensive study of his own business and its costs. He does not watch his production and other costs with the care that good business demands.

"He finds himself in the anomalous position of working to keep his draftsman busy

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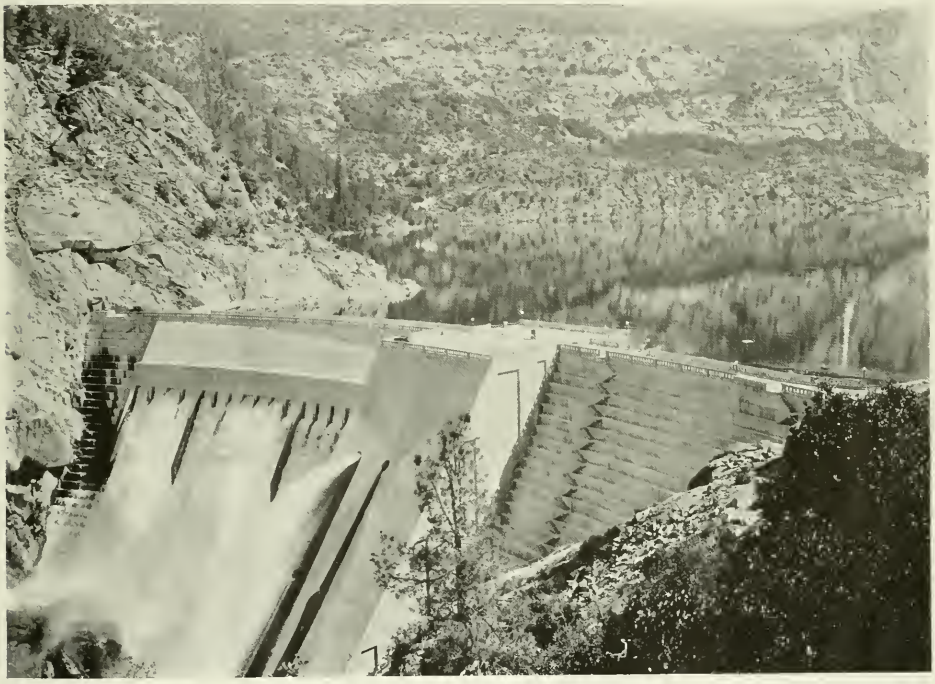

O'SHAUGHNESSY DAM AT HETCH HETCHY

The dam is 605 feet long, 344 feet high, 278 feet thick at foundation and contains 398,515 cubic yards of concrete. The cost was $7,000,000

The ARCHITECT'S VIEWPOINT

¶ *Modernist Wave will not Completely Change Style*
¶ *Clever Designer does not Always Mean a Finished Architect*
¶ *Anent the Building Material Pest*

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THE present "modernistic" influence in design is a revolt against the old practice of copying examples of archaelogy, instead of arriving at solutions in a more natural way. It is inevitable that some radical change should come after architectural design had dwindled down to a searching through the bone heap of the past. Our buildings were becoming almost as unreal as stage scenery, with columns that did not "col," buttresses that did not "butt," and half timber which became "half inch timber."

However, we may not improve our state if we believe that any individual will develop an entirely new style. By comparison, architectural style is like a language; a few words may be added each year but no one person can change it radically into an entirely different tongue. Yet that is exactly what our best known modernist expects to do. To create a style all his own—a language of his own. Fine—but he should not expect many to understand him.

It takes almost an expert to discover the true authorship of many buildings of the Rennaissance. The difference between some American Colonial houses and some English Georgian is small, which shows the change was not violent. The work of Sir Christopher Wren and Inigo Jones was not radically different. Samuel McIntyre and Charles Bulfinch showed different tendencies in design, but these were not widely separated.

It is just as impossible to change our architectural language suddenly as it is for us to begin speaking Eperanto tomorrow.

* * *

AN ARCHITECT, who it happens, is a splendid designer, said, in examining some reproductions of a student's work, "Slick rendering and drawing, but thank God, it will never be built," and it happens that this student was a graduate of one of our leading architectural schools. Any architect possessed of just reasonably good taste could not help agreeing that as an example of real, buildable architecture, the design was a "flop," yet this particular piece of work won for its author a travelling scholarship.

This example of student work is not unusual, but is quite typical of the work turned out by students in the architectural schools. Some of these chaps have evidently not been told that the building design is the thing to put the thought and study into, and not merely to make a pretty drawing.

It is said that some schools of architecture are making drastic changes in the method of educating the embryo architect, and it is time they did. Architectural design cannot be considered a subject abstract from building—but it is a part of the very fabric of the

structure itself. Every great masterpiece of architecture grew into existence in this manner.

To give the student all the subject matter and training of mind, eye, and hand, necessary to start him on the road to Architecture, in the comparatively short time allotted for the college course, cannot but be most difficult. However, it seems, that the subject of building, which in reality is architecture itself,—and the use, limitations, possibilties, and abuse of all the various building operations and materials, is not stressed to one tenth part that it should be. Can anyone tell us what else architecture is, than building, beautifully done? This admitted—then to educate the student to know, to appreciate and to do the thing!

Field trips—taking the students to stone quarries, planing mills, iron works, brick plants, plaster works, fixture factories, and so on, where they can see the real operations of building and have the possibilities and limitations of the various materials explained to them, would be a tremendous help in their training. These trips, not to be treated lightly, like sightseeing trips through Chinatown, but information gathering, knowledge seeking and thought promoting adventures.

Then, either through organized visites to or by requiring students to find for themselves, actual building operations, where they can observe in detail such work as brick laying, stone cutting, wood carving, iron forging, and so on. It might be possible to have some of these things done at the school, and even by the students themselves.

* * * *

IT WAS the actual framing of old English and French houses that created the beautiful half timber pattern. A thorough knowledge of brick work made possible the interesting corbelling and arch work that is the glory of North Italian architecture. When the student has knowledge of how materials should be used, and thoughts how they might be used, then he can design appropriate buildings, not scholarship winning schemes that, "Thank God, will never be built." Let credit then be given to ingenuous solutions. Failure to use the proper Order, or to use any Order at all, will not be justification for a solution to be thrown "Hors concours" by the judges to the discouragement of, perhaps, a budding genius. Why pick on students and schools, might be asked?

A New York architect said to a group of eastern architects, that to properly educate the lay taste, we must begin in the schools with the laymen of the future. It is logical, also, that to produce architects who will know how to appease this new and appreciative lay taste, we must begin with the architects of the future.

* * * *

IN a recent issue of *Pencil Points* is a piece of writing by a heating equipment salesman that should be copied and circularized amidst all the building material people in the field. The writer of the article mentioned is one man in a thousand—one who appreciates why an architect gets to the point, after interviewing fifty salesmen, that is akin to a savage beast! Some material salesmen have methods of gaining information that are exactly those of a prosecuting attorney cross-examining the defendant. They are required by their firms to get the facts so they can fill in their reports on the dotted lines, and expect the architect to show great interest in giving all the lurid details.

The author of the article should be sought out by the American Institute of Architects and suitably rewarded.

HAROLD W. DOTY, A. I. A.
Portland, Oregon.

EDITORIAL CHAT

TWO new features begin in this number of THE ARCHITECT AND ENGINEER. One, under the attractive heading, "Who's Who in This Issue," is intended to give the reader, at a glance, an introduction to the architect or writer whose material is being featured. This should prove of value to the reader who, at a glance, is given the "past performances," so to speak, of the architect or contributor.

The second feature embodies the ambitious undertaking of William I. Garren, well known throughout California for his work as secretary of the State Architects' Association and also for his interest in Institute affairs. Mr. Garren will select each month a portfolio of pictures from both foreign and domestic publications, together with local examples, illustrating modern tendencies in Painting, Sculpture, Engineering and Architecture. You will find more detailed explanation of the purpose of this Department on Page 46.

* * *

THE EDITOR has often wondered why our architectural journals do not take advantage of the self-evident fact that in the architectural profession are many men possessing literary ability of a high order. As an illustration, the writer believes that in future years our own Louis Sullivan will be better known as the author of "The Birth of an Idea" than as a designer.

At the January meeting of the Chicago Chapter, I. K. Pond, past-president of the Institute, remarked that his early contributions to the architectural press had made him known to more architects than his work as an architect.—*Illinois Society of Architects Monthly Bulletin.*

Will some good reader send us the names of Pacific Coast architects who may be classed with the two Eastern gentlemen mentioned above? We have several in mind but would like to have some outside expression. Frankly, we think our Pacific Coast architects are altogether too backward about coming forward with their literary tendencies.

SLOWLY but surely the world is beginning to accept our California architecture as a "Style" typical of the State. This is as it should be and was predicted as almost certain to come by this magazine more than ten years ago. In those days we heard a great deal about the "Mission Style." Later came "Spanish" and then "Mediterranean." Out of all this has come a blending of the several styles to fit our own California climate and needs. And what could be more appropriate than to call this developed style "Californian?" Admitting that its chief inspiration has eminated from the Latin types, its present state of development has nevertheless been largely influenced by climatic conditions such as are to be found in Southern California and along the Monterey Peninsula.

The Palos Verdes Art Jury has recommended that in the future the Mission, Spanish and Mediterranean types be discouraged and instead the word "Californian" be substituted. Institute Chapters, Civic organizations and others have been asked to endorse the movement.

THE ARCHITECT'S BUDGET

[Concluded from Page 105]

and his overhead paid, with nothing left for himself but worry and strain and such fame as may come of a business success."

Mr. Bergstrom outlines the essentials of an architect's budget, which he describes as "a budget of his time and of his finances." Of all professional men, he asserts, the architect should be more concerned with costs. Usually, he points out, the architect is more familiar with building costs than he is with the costs of carrying on his profession and creating his art.

In the budget of his time, Mr. Bergstrom warns, the hour of constructive thinking is just as important to time as the cash reserve is to finance.

"Therefore," he tells the architect, "budget your time, budget your finances, set aside your hour of thinking, your profits, your cash reserves. They are a guarantee of your success."

WITH *the* ARCHITECTS

ARTHUR BROWN BUSY

Arthur Brown, Jr., 251 Kearny street, San Francisco, has completed plans and specifications for the $400,000 Infirmary Building for the University of California, at Berkeley.

The office of Arthur Brown is now busy on working drawings for the W. W. Crocker house which is to cost $250,000 or more and will be ready for bids about May 1st.

Carleton Winslow, in his comments on Church Architecture last month, referred to Bakewell and Weihe as architects of the San Francisco Temple Emanu El. Credit, of course, should go to Bakewell and Brown.

APARTMENT CONTRACTS AWARDED

Messrs. Miller and Warnecke, architects of Oakland, have awarded contracts aggregating more than $250,000 for a six story steel frame apartment building for Oliver Kehrline at Lake and Madison streets, Oakland. The same architects are preparing plans for a $12,000 residence in St. James Wood which they are financing for speculative purposes.

EIGHT STORY ADDITION

The Metropolitan Life Insurance Company will build an eight story addition to its office building on Pine street, San Francisco. The company has commissioned Miller & Pflueger, San Francisco architects, to prepare the plans and it is intended to start construction early this spring. The improvements will cost $500,000.

NEWSPAPER BUILDING

Emory and Webb of Honolulu have completed plans for a two story reinforced concrete building for the Honolulu Advertiser. San Francisco sub-contractors have been asked to figure the work through the office of Lindgren, Swinerton, Inc. The general contractor is R. E. Woolley of Honolulu.

RESIDENCE AND LODGE BUILDING

Plans have been prepared by Russell De Lappe, 1710 Franklin street, Oakland, for a $16,000 residence for Dr. Fred Ewing. Mr. De Lappe states that it will be at least two months before plans are out for the Masonic Temple at Martinez, estimated to cost $30,000.

PALOS VERDES HONOR AWARDS

The jury making the annual honor awards at the Palos Verdes Estates, has submitted its report for 1928 and the house of Mr. and Mrs. James E. Buchanan has been judged the best example of architecture. A picture of the residence, designed by Kertland Cutter, appears on Page 89.

Honorable mention was given owners and architects of the following houses built during 1928:

Residence of Mr. and Mrs. K. W. Gale, 4124 Via Largavista. Designer: Raymond Struthers.

Residence of Mr. and Mrs. Howard S. Dean, 529 Granvia La Costa. Designer: Lincoln Mortgage Company.

Residence of Dr. and Mrs. O. J. Stein, 2733 Via Campesina. Architect: Kirtland Cutter.

Residence of Lt. Col. and Mrs. G. M. Kincade, 433 Via Almar. Architect: Mrs. G. M. Kincade.

NEW MEMBER OF FIRM

Morris H. Whitehouse and A. Glenn Stanton of Morris H. Whitehouse & Associates, architects, Portland, Oregon, have announced that Walter E. Church is now a member of their firm.

Mr. Church was born in Boston, where he received his early education. He later attended school in San Francisco. Upon graduation from the University of Oregon he went abroad for travel and study.

Before locating in Portland Mr. Church was identified with G. Albert Landsburgh and George W. Kelham, both prominent San Francisco architects.

Mr. Church is a member of the Oregon Society of Artists and the Oregon chapter, American Institute of Architects, of which he is treasurer.

SANTA ROSA HOTEL

Ed. Musson Sharp, 60 Sansome street, San Francisco, has prepared plans for a ten-story Class A hotel to be built in Santa Rosa for the Berry Hotel Company, which operates the Berry Hotel in Sacramento. There will be 140 rooms, dining hall, large lobby, etc. The hotel and equipment will cost $250,000.00. Raymond Jeans, 605 Market street, is associated with Mr. Sharpe in preparing the plans.

SCHOOL ADDITIONS

N. W. Sexton, architect of San Francisco, has prepared preliminary plans for additions and alterations to the San Rafael schools.

CLAIM LIBEL

Albert C. Martin, architect of Los Angeles, and Charles Scribner & Sons Publishing Company, are defendants in a $150,000 damage suit brought by the Allied Architects' Association and which went to trial in Superior Court in Los Angeles, February 14th.

The Association alleges that a letter written by Mr. Martin containing "untruthful and disparaging statements" about the plaintiff, which "greatly damaged" the reputation of the Association, was printed in *Architecture*, a magazine published by Scribners.

Mr. Martin denied that publication of the letter had any ill effect while the publishing house contends the letter was printed in good faith with no intent to injure the Association.

GRANTED CERTIFICATES

The following applicants have been granted architects' certificates by the Southern District, California State Board of Architecture: Sam Neighbors, 2811 Hill Drive, Eagle Rock; Miss Lillian Jeanette Rice, Rancho Santa Fe, California; William F. Rudd, 1101 Glen Arbor avenue, Los Angeles.

SIX STORY APARTMENTS

Harry C. Knight has announced his intention of erecting a six story steel frame apartment house at 15th and Grove streets, Oakland, from plans by Douglas D. Stone who is also completing plans for a $250,000 apartment building for Harry Schuster at Arch street and Hearst avenue, Berkeley.

BERKELEY WOMEN'S CLUB BUILDING

Working drawings are being completed in the office of Julia Morgan, architect, for the new Women's Club building in Berkeley. Only one unit will be built this year, it is currently reported. This will face on Durant street.

$200,000 PROJECT

All Saints Episcopal parish of Pasadena will spend $200,000 on a concrete parish house and rectory. Plans are being prepared by Messrs. Bennett and Haskell who estimate the cost at $200,000.

MARTINEZ HOTEL ADDITION

Leonard Ford, architect of Oakland, has completed plans for an addition to one of the leading hotels in Martinez. Mr. Ford has also finished plans for a $15,000 Spanish house in Oakland.

PERSONAL

John Stafford White, architect, having finished for the time being his work for the Floridale Townsite Corporation, Graybar Building, New York City, at Floridale, Florida, has returned to California and may be addressed by the building trades at No. 521 Irving avenue, Glendale.

Charles R. Selkirk has moved his office to 3441 West First street, Los Angeles.

Rudolph Falkenrath, Jr., 611 Chamber of Commerce Building, has opened a branch office in the Earl C. Dingwell Building, 1205 S. Fair Oaks avenue, South Pasadena.

William H. Crim, Jr., announces the removal of his office for the practice of architecture from Kearny street where he has been located for many years, to 488 Pine street, San Francisco. Mr. Crim is completing plans for one of San Francisco's largest school buildings.

Nostrum & Anderson, architect and engineer, announce the removal of their offices from the City National Bank Building to suite 1104 W. M. Garland Building, 117 W. Ninth street, Los Angeles.

McNeal Swasey has moved his offices to suite 1101 Security Building, Los Angeles. Benjamin S. Hayne, formerly of San Francisco, is associated with Mr. Swasey and the firm name is Swasey & Hayne, Architects.

MILLS BUILDING FOUNDATIONS

Lloyd's of London recently wagered $500,000 that the Mills building in San Francisco will not sustain any damage because of the excavation which will be made for the new Stock Exchange building on an adjoining site. Excavation on the site of the proposed Stock Exchange building may be unusually hazardous, but the contractor responsible for it will be just as anxious to keep the Mills building from slipping into the excavation as the owners of the building are that it shall not be damaged, and according to the engineer of the Mills building, the late Willis Polk anticipated just such an emergency when he planned the structure.

STORES AND LOFTS

Messrs. S. Tilden Norton and Frederick H. Wallis of Los Angeles have completed plans for a $200,000 four story Class C store and loft building for Shane and Regar. The structure will occupy the southwest corner of Hollywood Boulevard and Cherokee Ave., Los Angeles.

EXHIBITIONS OF INTEREST

During February two interesting exhibitions were held in the exhibit room of the Architects Building, Fifth and Figueroa streets, Los Angeles. One, a loan exhibition from the Danish National Exhibition at the Los Angeles Museum, consisted of architectural photographs, smart batik wall hangings, an old coin cabinet, displaying rare coins, and some antique Kahler ware from the famous Kahler factory in Copenhagen. This traveling exhibition is on the last lap of its American tour and will be shipped to Denmark the latter part of March.

William Clarke's display of European and local photographs proved interesting in the extreme. Mr. Clarke's signal success as an architectural photographer is attributed to the fact that he is a certified architect by profession and knows good architecture when he sees it. Mr. Clarke has reproduced to an exquisite point the quaintness of the English countryside, the awe-inspiring reverence of the English churches and the carefree banter of the gypsy of Southern Spain.

For the month of March, Henry Carleton Newton and Robert Dennis Murray have arranged an unusual exhibition consisting of their famous small houses, well designed churches, schools, large buildings, etc.

OREGON ENGINEERS

J. C. Stevens, member of the engineering firm of Stevens & Koon, Spalding building, Portland, has been elected president of the Professional Engineers of Oregon. Other officers are: Walter Haynes, vice president; Fred D. Weber, treasurer; H. H. Schoolfield, Leo R. Lange and C. H. Lundell, trustees.

After consideration of the existing law for registration of professional engineers in Oregon it was decided not to initiate any amendments at present, but to work for the better enforcement of the law as it now stands on the statute books.

HAS MUCH WORK

Russell B. Coleman, 1132 Cambridge Road, Burlingame, has opened a down town office at 1404 Broadway, Burlingame, in order to accommodate his growing clientele. Coleman reports that he has more than $100,000 worth of new work on the boards, including two apartment houses, an Italian Villa in Hillsborough for Chas. W. Haswell and one in Burlingame Hills for Lester Edner; also for the latter, five speculative houses costing $12,500 each; a group of houses for the Geo. W. Williams Company and a $25,000 English studio in Burlingame.

ARCHITECTURAL APHORISMS

—by—

BERNARD HOFFMAN

Southern California Chapter, A. I. A., has shown its appreciation of Bernard Hoffman, civic leader and art patron, by making him an Honorary Member of the Chapter. At the meeting that conferred this signal honor on Mr. Hoffman he spoke informally to the members and from his few finely chosen words we excerpt the following as outstanding paragraphs:

* *

Trystan Edwards in his "Things Which Are Seen," rates architecture as the highest of our so-called Fine Arts; his thesis is that Art is of little account unless it benefits society and that the judge of Art should be the average man.

* *

Surely no art is so all pervading for society and for the average man as architecture—every man lives in a building—most work in a building—pass buildings constantly—and from their housing and their environment they can be more deeply affected and continuously inspired.

* *

To my mind the small house problem, which looms so large and presents so many difficulties might potentially be the most hopeful and effective way of arousing a keener art appreciation in this country.

* *

I count the architect as a fortunate and important moulder of opinion and factor in advancing civilization.

* *

It is the architect's privilege to come in contact with the individual when he is expressing himself. The counsel the architect can give the owner, the education he must aid him in acquiring, all come at a time when they are most likely be apprehended and followed.

* *

I feel from our experience in Santa Barbara that the practice of holding annual judging of recent buildings is a dignified and proper medium for calling attention to new work and is well justified.

* *

I look forward to the day when the architects will be willing to sign their work, a practice which would seem to me a fitting tribute to the architect and a real stimulus to appreciation and interest. In this commercial day, the layman's interest seems to center more on the number of acres of floor space or the millions of cost than in the artist and the vision which has beautified the community.

* *

Glorious as has been the work of architects in the past, inspiring and uplifting, there seems now an even wider scope and greater need for the influence he can exert by reason of his close contact with the individual who is attempting to express himself through a subject which has a proprietary and definite interest.

* *

The tempo of our age has been so speeded up with jazz, radio, the automobile and the aeroplane that now more than ever before, it is necessary so to build and plan and execute that simplicity, sincerity and beauty may not be overlooked or ignored in the mad rush.

CONCRETE CANNERY

Plans have been completed in the office of H. J. Brunnier, structural engineer in the Sharon Building, San Francisco, for a one, two and three story reinforced concrete fish cannery at Pittsburg, Contra Costa County for the F. E. Booth Company. The plant will cost $150,000.

THE SAN FRANCISCO EXHIBITION OF DECORATIVE ARTS

Written for The Architect and Engineer by Genevieve Hailey and Approved by Mrs. Anno Dodge Boilhache, President of the San Francisco Society of Women Artists

AN exhibition that marks San Francisco as a truly creative art center and not just a mere traditional patroness of dubious fine arts, is the recent Second Exhibition of Decorative Arts, held at the Women's City Club. Its ideals were first impelled by the San Francisco Society of Women Artists, joined now by the Women's City Club, the San Francisco Garden Club and many architects and designers who have "gone modern" which more properly means "become alive to new art forms, contemporary and current."

The fantastic of the modernistic trends were carefully deleted from this exhibition, as were self-conscious works and false originality. Only products of local studios and craft-shops that adhere to a unified whole were admitted to the "ensemble" of the showing. A finer exhibition, free from clutter and confusion, has not been presented to the layman in San Francisco's decorative art history.

The supervision by Rudolph Schaeffer assures us that the modern artist is an executive and business refiner as well. Schaeffer, as a leading Pacific coast exponent of modern design, found suitable opportunity for his talents in the architectural arrangement of the units and main effects of the exhibition, which resulted in a serene bazaar of modern arts.

The exhibition proves anew that the arts of space and the business of textures are fine arts in themselves. That decoration is an expansion of architecture in complete key with the plans and structural beginnings. The modern decorative arts are based upon a philosophy that "architecture must embrace the fine arts as decoration and that decoration is not embellishment," etc., etc., to modern simplification.

We notice, too, that the ultra-modern in decoration is based upon a propaganda that "engineering is an art, consistent with the theme that the thing itself is beautiful, without added surface effects." The old standby—"let function dictate form" adds and "leave it so, but make the form as handsome as possible."

Good examples of architectural and engineering influence on decoration prove them equally right and the bad examples are always atrocious. The pipes and mechanical planes of today are not yet part of the coziness of the home. They are well subdued in the patterns of the Californian artists, even those who adapt their patterns to textiles.

Neither does the latest form of art revere the Spanish in decoration, despite the fact that certain Californian communities have become more Spanish in their architecture and decorative arts than California ever was in her early Spanish days. In fact, no past period, partially preserved in any museum or literature, has inspirited the modernists.

New forms, is their cry, even though Californians accept all the variations of Mediterranean styles, the near-Eastern opulence and the antiquity of the Oriental styles, as special gifts to our life. We have avoided the later Hollywood concoctions as too sophisticated, yet those who are lovers of the primitive have not stressed the American Indian, South Sea island and Mexican arts at our gates.

We insist upon an undiluted modern art, as suitably ours as our skyline, our far western industries and international tensions. We are as close to science and invention as any civilized peoples, so our art must become civilized. Our advanced designers are justified if they abandon the Californian lore and legend and welcome the speed and steel age. Art forms have become leagues of notions that try to pacify the decorative art world. The decorative art momentum, fresh in Germany 35 years ago, is now vivified to the great American public through the recent exhibitions of decorative arts in department stores. The modern movement has always been recognized by artists and designers of minor arts in California as a reliable research into the aesthetic realm. Its premises bear looking into by scoffers at modern art.

It is true that European designers, long ago derived some of their modern motives from our American grain elevators, skyscrapers and automotive engineering, so why cannot American artists use the same mechanical analysis to effect their own devisings in art? We face again the truism, that "A great art reflects its own age."

The Decorative Arts Exhibition has proven, however, that this is not wholly a jazz age, for with calm and serene simplicities its effects balance gay color with quiet color, lively lines with stabilized areas, novel textures with staid old stand-bys. Every artistic and architectural medium is used in newer combination and fresh forms.

The San Francisco Society of Women Artists can well make this an annual exhibition and the Civic Center Auditorium will be none too large for its assembled arts, hereafter. The San Francisco Garden Club, especially, needs more space in which to tell of its larger visions regarding courtyards, patios, roof gardens and

all their ideals for the newest city architecture and civic beautification.

If the names of the designers of the separate units reveal any racial talents and inborn capabilities, the results of the exhibition could not be called anything but foreign-kist sun-kist Californian decorative arts. For any European modernist would kiss us on both cheeks and give us a ribbon of honor for distinguished service on the field of battle in modern art.

The first unit was a corner of a living room by Rudolph Schaeffer and pupils, executed by A. F. Marten. The textile, designed by Peter Friedrichsen, the glass panel by Fred Weisenburger and the decorative design by Norman Edwards.

The next group was a dining room designed by Fritz Baldauf, executed by A. F. Marten and staff o. decorators. Another group was an art connoisseurs study designed by Lucien Labaudt and edited by various craftsmen, with the technical arrangements by George W. Bannister. Lamps by the Roberts Manufacturing Company, iron work by David Tolerton, metal craft by Harry Dixon, lacquered screen by Labaudt and Ralph Cheese, book binding by Otis Oldfield, other fittings by Alice O'Neill and Francis H. Rosher.

A bedroom by Jacques Schnier duplicated one he has installed in the Henry F. Swift house in Berkeley. Carved wooden panels, doors and figures demand unfinished woods in rustic effects. The corner of a man's room designed by Forrest Brissey, features furniture by Kem Weber, and is one of the most possible and plausible of the sets displayed. Kem Weber is known from Hollywood to New York as a designer of modern furnitures and interiors that are acceptable to the uses of everyday people, although he also designs custom built furniture for those who indulge in personality-plus modern themes.

A garden court was the architecture of Helen Deusner and Alicia Mosgrove, the fresco decorations were by Helen Forbes, Florence Swift and Marian Simpson. The Garden Club's showing was under the general direction of Jean Boyd. The architect was Walter T. Steilberg, a modern metal fountain and lead plaque by Harry Dixon, ceramics by Florence Richardson.

The romantic school of ornament was well represented by Ralph Helm Johonnot and Salome L. Johonnot and the Waldvogel Studios of Monterey. The Johonnot unit stated their reasonableness as an attempt to "express joy through the harmony of color and the restrained use of pattern in the things with which we live."

Screens and painted panels appeared in all fabrics and new materials decorated in pigments of varied scope. Great curtains by Rose Pauson revealed slender panels of leaded glass and etched glass by Fred Weisenburger and George J. Loeffert. The abstract designs would be very suitable to solve the problem of unobtrusive windows that must let in light yet conceal an unsightly view. The main panel of brilliant color in repeated patterns of glass reflected in a long pool of tiles down the middle of the auditorium, serving at once to cool the room and to give it an outdoor atmosphere, sunlit and gay, but not carnival.

The upper balcony is carefully censored and shows color and texture of rhythm in "loom-danced" fabrics, also ceramics, painted hangings, frescos and other mediums of modern mein suitable to modern interiors. Maxine Albro. Carol Wurtenberger, Frank Bergman, Edith Hamlin, John Bovington and Jeanya Marling, contribute very professional products for those young at their trade or new to their mediums. Ceramics by the California Faience Company and Jalonivich and Olson prove our glazes and colors are as reliable as those of other peoples and ages.

Indeed a complete catalog of the artist-designers who made this exhibition would provide a shopping guide for all the reliable workmen and aesthetically sound workers in the arts that one would need to choose from for exactly the type of decoration needed in the interiors and exteriors of tomorrow's office, home or public building.

PACIFIC COAST PLANT

Truscon Steel Company has recently completed its new $1,000,000 factory at Los Angeles to take care of Coast business. Occupying a tract of approximately ten acres at 5460 East Slauson avenue, the plant is said to be one of the most pretentious and modern on the Pacific Coast. J. E. Heber, who has been in charge of the company's Los Angeles office for the past twenty-one years, has been made vice president in charge of the enlarged local organization.

STANWIN CASEMENTS

"Stanwin Casements," a new catalog designated No. 1, has just been published by the Crittall Casement Window Company of Detroit, Mich. It is superbly illustrated and contains much valuable data for the architect and builder interested in steel casements. The brochure may be had for the asking.

CALIFORNIA ARCHITECTS' LICENSE LAW PASSES SENATE

Having the unqualified support of the California State Architects' Association, an amended bill to the California Architects' License Law has been favorably acted upon by the Senate and passage of the bill is now assured. Following is the text of the measure, new matter being indicated within parentheses and omissions by blanks within parentheses:

An act to amend sections 1, 2, 3, 4, 5, 6 and 7 of an act entitled "An act to regulate the practice of architecture," approved March 23, 1901, as amended, and to add two new sections to said act, to be numbered Sections 8 and 9, relating to revocation of certificates and definition of terms used in said act.

The people of the State of California do enact as follows:

Section 1. Section 1 of an act entitled, "An act to regulate the practice of architecture, as amended," is hereby amended to read as follows:

Section 1. ( ) The governor of the state shall appoint ten persons to constitute a board, which shall be known as ( ) (California state board of architectural examiners.) Five members of said board shall be residents of the northern district of California, and shall constitute the northern district board, for the examination of applicants for certificates to practice architecture in the State of California (and for the performance of such other duties as may be provided for in this act.) The other five members of said state board shall be appointed from the southern district of California, and shall constitute the southern district board for the examination of applicants for certificates to practice architecture in this state (and for the performance of such other duties as may be provided for in this act.) The northern district shall consist of all that portion of the state north of the northerly lines of the counties of San Luis Obispo, Kern and San Bernardino; and the southern district shall consist of all that portion of the state south of the northerly lines of the said three counties.

Said ( ) (California state board of architectural examiners) shall be appointed as follows: Five members shall be selected from the membership ( ) of the ( ) (Northern California chapter or chapters) of the American Institute of Architects or other similar association of architects, two of whom shall be designated to hold office for two years. Five members shall be selected from the membership ( ) of the Southern California chapter (or chapters) of the American Institute of Architects or other similar association of architects, two of whom shall be designated to hold office for two years. (All appointees shall be members in good standing, of their respective organizations.) Each architect so appointed shall hold office for four years, unless designated to hold office for two years. Thereafter, upon the expiration of the term of office of the members so appointed, the governor shall appoint a successor, or successors, to such outgoing member, or members, whose term of office shall have expired, to hold office for four years; provided, that the membership of the ( ) (California state board of architectural examiners) shall be composed as herein set forth. Each member shall hold over after the expiration of his term of office until his successor shall have been duly appointed and has qualified. Any vacancy occurring in the membership of said board shall be filled by the governor, for the unexpired term, in like manner. The members of the board shall serve without compensation. All expenses incurred by the board shall be paid out of the funds ( ) (collected as hereinafter provided.

The members of the state board of architecture in office at the time this amendment takes effect shall continue to serve as members of the California state board of architectural examiners for the respective term for which they have been appointed.)

Sec. 2. Section 2 of said act as amended is hereby amended to read as follows:

Sec. 2. The members of the ( ) (California state board of architectural examiners) shall, before entering upon the discharge of their duties, take and file with the secretary of state, the constitutional oath of office. Said state board shall, within thirty days from and after its appointment, meet and elect from its number a president and a vice-president, one of whom shall be a resident of the northern district and the other a resident of the southern district, and the said president and vice-president, (in addition to serving as officers of the state board, shall be the presiding officer of his respective district board;) and two secretaries, one from each district. The secretaries shall also act as treasurers. The member receiving the highest number of votes shall be secretary, and the member receiving the next highst number, assistant secretary. Said members shall hold office for two years, or until their successors shall have been duly elected and have qualified.

Sec. 3. Section 3 of said act as amended is hereby amended to read as follows:

Section 3. The (state) board may adopt rules and regulations to govern its proceedings, not inconsistent with this act. It shall adopt a seal for its own use and one for each of the district boards. The seal used by the northern district board shall have the words northern district inscribed thereon, and the one for the southern district board shall have the words southern district inscribed thereon, and the secretary and assistant secretary, (respectively,) shall have care and custody thereof. The secretary (and assistant secretary, respectively,) shall keep an accurate record of all proceedings of the state board (and the district boards,) which shall be open to inspection by the public at all times.

Six members shall constitute a quorum of the state board and three members shall constitute a quorom of the district boards for the transaction of business.

Special meetings of the ( ) California state board of architectural examiners shall be called by the secretary upon the written request of four of its members, by giving each member of said board twenty days' written notice (in advance,) of the time and place of such meeting. District boards shall call special meetings upon the written request of two of their members made to the secretary and upon five days (similar) written notice to each member of the district board calling such meeting. ( )

Within thirty days after the date of its appointment, the state board shall meet to organize, elect officers as in this act provided, and to formulate and adopt a code of rules and regulations for its government in the examination of applicants for certificates to practice architecture in this state; and such other rules and regulations as may be necessary and proper, not inconsistent with this act. Said board may, from time to time, repeal or modify its rules and regulations. The board shall meet annually on the second Tuesday in April, for the purpose of transacting such business as may lawfully come before it. ( ) The district boards shall hold their regular meetings on the last Tuesday of ( ) (February, May, September and November) of each year for the examination of applicants for certificates to practice architecture. The board of the northern district shall meet in San Francisco and the board of the southern district shall meet in Los Angeles. At such meetings the said boards may transact any other business that may properly come before them. (The district boards may also hold other meetings at such times and places as they may elect.)

The district boards are authorized to prosecute all persons guilty of violating the provisions of this act. Said boards shall have the power to employ legal counsel for such purposes, and may also employ inspectors, special agents, investigators, and such clerical assistants as they may deem necessary to carry into effect the provisions of this act. They may also fix the compensation to be paid for such services and incur such additional expense as may be deemed necessary.

Any person shall be entitled to an examination for a certificate to practice architecture upon payment, with his application, to the secretary of the district board of a fee of

fifteen dollars, which fee shall be retained by the board; should the applicant's examination prove satisfactory to said district board the secretary shall, upon payment of a further fee of ( ) (ten dollars,) issue to the (applicant a provisional certificate, signed by the president and secretary, sealed with the seal of the district board, and directed to the California state board of architectural examiners, showing that the person therein named passed a satisfactory examination and is entitled to a certificate to practice architecture in the state, in accordance with the provisions of this act. And, upon said provisional certificate being filed with the said California state board of architectural examiners, the said state board shall at its annual meeting issue a certificate to the applicant to practice architecture in this state, duly signed by its president and secretary and its seal affixed, which certificate shall contain the name of the applicant, his birthplace and age, provided no charges of dishonest practice, of deception resorted to in obtaining a certificate, of gross incompetency in the practice of architecture or of any other violation of the provisions of this act, have been filed and substantiated with the state board. Proper index and record thereof shall be kept by the state board. If the provisional certificate be issued less than sixty days before the annual meeting of the state board, then the final certificate shall not be issued until the annual meeting next succeeding. A holder of a provisional certificate may practice architecture until said annual meeting. Certificates to practice architectue shall remain in full force until revoked for cause as hereinafter provided.)

Sec. 4. Section 4 of said act as amended is hereby amended to read as follows:

Sec. 4. ( ) Every architect shall have his (provisional) and (final) certificate recorded in the office of the county recorder of the ( ) county in which he has his principal place of business and shall pay the recorder the same fee as is charged for recording deeds, and receipts for such recording shall be filed with the district board. ( )

Sec. 5. Section 5 of this act as amended is hereby amended to read as follows:

Sec. 5. ( ) It shall be unlawful, and it shall be a misdemeanor, punishable by a fine of not less than fifty dollars nor more than five hundred dollars, (or by imprisonment in the county jail not exceeding six months, or by both such fine and imprisonment,) for any person to practice architecture in this state without a certificate, as herein provided, or to advertise or put out any sign or card or other device which might indicate to the public that he is an architect (or that he is qualified to engage in the practice of architecture.)

Nothing in this act shall prevent any person from making plans or drawings for his own buildings or from furnishing to other persons plans, drawings, specifications, (instruments of service,) or other data for buildings, if, prior (to accepting employment or commencing work) on such plans, drawings, specifications, (instruments of service,) or other data, the person so furnishing such plans, drawings, specifications, (instruments of service,) or data shall have fully informed such other person or persons, (in writing,) that he, the person proposing to furnish such plans, drawings, specifications, (instruments of service,) or data, is not an architect; (and nothing in this act shall prevent an architect from forming a partnership with persons who are not architects, provided that the name of the architect shall appear as the architect on all instruments of service and that in no case shall the other members of such partnership be designated as architects;) and nothing in this act shall prevent a person who is engaged in the practice of architecture outside the State of California from preparing plans and specifications for a stipulated building or other structure within the state, provided, that, he shall present satisfactory evidence to the board of the district in which the structure is to be erected that he is competent to practice architecture, and such board has issued to such person a temporary certificate for the stipulated structure and such person has paid to said board a fee of ( ) (twenty-five) dollars therefor.
( )

Sec. 6. Section 6 of said act as amended is hereby amended to read as follows:

Sec. 6. ( ) (Every architect shall pay an annual license fee to the secretary of the board of the district of which he is a resident. The annual license fee shall be ten dollars, provided that the said California state board of architectural examiners may reduce said fee to not less than five dollars. Said fee shall be due and payable on or before the thirty-first day of January of each year and shall become delinquent on the first day of April following. And the certificates of such architects who shall fail to pay their annual license fee by the first of April following, shall be subject to revocation by said district board. The secretary of said district shall issue a receipt signed by the president and secretary of the district board, under the seal of said board, to each architect promptly upon payment of the annual license fee.)

Sec. 7. Section 7 of said act as amended is hereby amended to read as follows:

Sec. 7. (On the last day of every month all fees collected by the secretary of the northern district board, under the provisions of this act, shall be paid by him into the state treasury to the credit of a special fund to be known as the California state board of architectural examiners, northern district fund, which said fund is hereby created; and, in like manner, all fees collected by the secretary of the southern district board shall be paid by him into the state treasury to the credit of a special fund to be known as the California state board of architectural examiners, southern district fund, which said fund is hereby created.

The state treasurer shall transfer to the California state board of architectural examiners, northern district fund, and to the California state board of architectural examiners, southern district fund, respectively, all moneys heretofore collected from the respective districts and now on deposit in the state treasury.

The moneys so paid into the California state board of architectural examiners, northern district fund, shall be used in the manner prescribed by law to defray the expenses of the northern district board in carrying out and enforcing the provisions of this act; and the moneys so paid into the California state board of architectural examiners, southern district fund, shall be used in the manner prescribed by law to defray the expenses of the southern district board in carrying out and enforcing the provisions of this act.

The state treasurer shall, upon receipt of written authorization from either district, transfer the whole, or any portion, of the funds of such district, to the funds of the other district.)

Sec. 8. A new section, to be known as section 8, is hereby added to said act, to read as follows:

Sec. 8. A provisional certificate issued by a district board, or a certificate issued by the state board, may be revoked for dishonest practice, for deception resorted to in obtaining a certificate, for a failure of recordation, for a failure to pay the annual license fee prior to the delinquency date, for gross incompetency in the practice of architecture, or for any violation of the provisions of this act, which shall be determined solely by the board of the district in which the person, whose certificate is called in question, is residing or is doing business; and upon full investigation of the charges by the district board, reasonable opportunity having been given the accused to be heard in his own defense or by counsel. The vote of four members of the district board shall be sufficient to revoke a certificate. Upon the revocation of either of such certificates, it shall be the duty of the secretary of the district board to give notice of its action to the county recorder of the county in which the certificate was recorded; whereupon, he recorder shall mark the certificate of such architect, recorded in his office, "revoked." Record of revocation shall also be filed with the California state board of architectural examiners.

After the expiration of six months, the person whose certificate has been revocked may file application with a district board for a new certificate.

Sec. 9. A new section, to be known as section 9, is hereby added to said act, to read as follows:

Sec. 9. The word architect, as used in this act, means a person who holds a certificate to practice architecture in the state of California, under authority of this act.

SOCIETY and CLUB MEETINGS

NORTHERN CALIFORNIA CHAPTER

The regular meeting of the Northern California Chapter, A. I. A., was held at the Mark Hopkins hotel on February 26, at 6:30 p. m. The following members were present: Messrs. Wyckoff, Maury, Perry, Osborne, Coxhead, Gutterson, Newsom, Corlett, Stringham, Hays, Ambrose, Bartges, Klinkhardt, Dean, Hyman, Masten, Clark, Yelland, Garren, Leffler Miller, Jeans, Chester Miller, Hurd, Allen, Evers, Hildebrand, Jorgensen, McSweeney, Kelham, Mitchell, Appleton, Farlow, Brown and Weihe.

Guests present were: Prof. Shipley, Messrs. Sperry, Clarke, Kayser, Warnecke, McBean and Morrow.

Mr. Jeans rendered a report on the Craftsmanship Exhibit and outlined the plans for the forthcoming A. I. A. Architectural exhibit to be held in June.

Mr. Maury reported for the Committee on Standardization of Office and Drafting Room Symbols.

Wm. C. Ambrose was appointed to sit with the Section of Occupational Restrictions of the Commonwealth club.

The action of Palos Verde Estates and Southern California Chapter to designate prevalent style of building in California as "Californian" in place of Mission, Spanish, etc., was endorsed.

Members were asked to make a special effort to attend the A. I. A. Convention in Washington as delegates.

Austin Sperry entertained with musical selections.

Albert J. Evers reported on the proposed amendments to the Architects' License Law now pending before the present session of the Legislature. (The act is printed in full elsewhere in this issue of *The* ARCHITECT *and* ENGINEER.)

George W. Kelham urged the necessity of supporting the Industrial Association's "American Plan" and the upholding of the scale of wages established by the Impartial Wage Board. Following his remarks it was moved by H. H. Gutterson and unanimously carried that the Northern California Chapter, A. I. A., endorse the wage scale of the Impartial Wage Board and agree to use every effort to carry on the aims and purposes of the Board and the Industrial Association.

Arthur Brown, Jr. addressed the meeting on the development of the Veterans' Memorial group from its inception, and described the features of the Opera House and Veterans' Building which comprise the group. An interesting collection of sketches was exhibited.

The next meeting will be held at the Mark Hopkins hotel at 6:30 p. m., March 26th.

SOUTHERN CALIFORNIA CHAPTER

The February meeting of Southern California Chapter, A. I. A., had for its principal speaker Bernard Hoffman of Santa Barbara, who only recently was made an honorary member of the Chapter.

Mr. Hoffman told of the co-operation which the Santa Barbara Community Arts Association, of which he is chairman, secured from the architects of Southern California after the earthquake in the work of that association, in developing there a keen interest in the art of architecture and an appreciation of architectural traditions.

"To my mind the small house problem," Mr. Hoffman said, "which looms so large and presents so many difficulties, might potentially be the most hopeful and effective way of arousing a keener art appreciation in this country.

"Traveling exhibits of art sent to schools and museums—art literature and art schools are helpful and necessary, but the foundation or group that will make it possible for the small home owner to acquire through his building and owning experience, a familiarity with the principles of art and beauty, would affect society near the base of the pyramid," Mr. Hoffman added.

President Pierpont Davis announced that a new Chapter of the American Institute of Architects is being formed and will comprise the counties of San Luis Obispo, Santa Barbara and Ventura, with headquarters in Santa Barbara.

The honor award competition will be held this year, according to the decision made at this meeting, the date to be announced later.

Committees for the year 1929 were announced by President Davis as follows:

Institute and Chapter Affairs—A. S. Nibecker, Jr., chairman; Edwin Bergstrom, R. D. Johnson, W. T. Johnson, H. D. Pierce.

Public Service Committee—Edgar H. Cline, chairman; H. F. Withey, J. J. Backus, S. Chas. Lee, A. L. Acker, Sumner P. Hunt, J. C. Austin.

Sub-committees: (a) Legislation—S. Chas. Lee, chairman; W. F. Staunton, Jr., Paul Duncan.

(b) Building Ordinances—Arthur L. Acker, chairman; Stiles O. Clements, Loyal F. Watson.

(c) Welfare of the Profession—H. F. Withey, chairman; Sumner P. Hunt, Edwin Bergstrom, R. D. MacPherson, Alfred W. Rea, Sumner M. Spaulding, Robt. B. Stacy-Judd, S. Chas. Lee, John C. Austin.

Ethics and Practice—Wm. Richards, chairman; D. C. Allison, Sumner P. Hunt, John B. Parkinson, David J. Witmer, Alfred W. Rea.

Affiliated Societies—Allied Arts—Eugene Weston, Jr., chairman; Stiles O. Clements, Chas. F. Plummer, C. E. Noerenberg, C. M. Winslow, Roy C. Mitchell.

Sub-Committees: (a) Affiliated Societies—Chas. F. Plummer, chairman; Roy H. Kelley, Lloyd Rally.

(b) Allied Arts—W. L. Woollett, chairman; Wm. M. Clarke, C. M. Winslow.

(c) Construction Industries Committee—C. E. Noerenberg, chairman; Walter Webber, Edwin Bergstrom.

Membership Committee—R. C. Flewelling, chairman; A. M. Edelman, Donald B. Parkinson, Gordon B. Kaufmann, J. E. Stanton, D. R. Wilkinson.

Education and Publicity—Sumner M. Spaulding, chairman; Palmer Sabin, C. R. Johnson, A. C. Weatherhead, H. Roy Kelley.

Sub-Committees—(a) Education—A. C. Weatherhead, chairman; Arthur Hutchason, Walter Davis, W. L. Risley, A. C. Zimmerman.

(b) Schools and Scholarships—C. R. Johnson, chairman; Kenneth Carpenter, D. R. Wilkinson, Edgar W. Maybury, Roland Coate, Edwin P. Clarke.

(c) Exhibitions—Palmer Sabin, chairman; George Adams, Paul O. Davis, Leland Fuller, Robert Murray; J. J. Reed Barrett.

(d) Publicity and Publications—H. Roy Kelley, chairman; H. C. Nickerson, Chas. Kyson, H. O. Sexsmith, Edwin D. Martin.

Permanent Records—Edwin Bergstrom, chairman; A. S. Nibecker, Pierpont Davis.

Special Committees:

Chapter Quarters—Wm. Richards, chairman; David J. Witmer, R. D. Johnson, Walter Webber.

Tree Committee—Chas. H. Cheney, chairman; Franz Herding, Eugene Weston, Jr.

Competitions—Pierpont Davis, ex. officio, chairman; J. E. Allison, David J. Witmer, Myron Hunt.

COURSES IN ENGINEERING

Three courses in engineering and industrial subjects are to be offered this spring in San Francisco by the University of California Extension Division, according to an announcement of the March-April classes just published.

Courses in blueprint reading and estimating are to be given by G. C. Polson, head of the drawing department, Vocational high school, Oakland, and W. J. Huston, head of the shop department of the same school.

Structural Design is the subject of the third course, to be given by Norman B. Green, consulting structural engineer. The first meeting will be held on Tuesday evening, April 2, at 7:30 o'clock at the Extension Building.

STORE AND LOFT BUILDING

Walter C. Falch, Hearst Building, San Francisco, has completed plans for a two story and mezzanine store and loft building to be built on the west side of Valencia street, near Duboce, for R. McMillan.

L. A. ARCHITECTURAL CLUB

One of the best attended meetings the Los Angeles Architectural Club has ever held took place at the Mary Louise Tea Room on Seventh street, February 19th, with more than 135 members and guests in attendance. "Modern Versus Tradition in the Arts," was the subject of discussion and the topic was treated in many different ways. Kem Weber, artist and designer, an exponent of modern art and architecture, declared the intent of it was "to find the most practical solution for a given subject and express it aesthetically." All of those who expressed themselves upon the subject frankly stated they were modernists to some degree and were in favor of the development of the new idea in architecture and art.

William Lee Wollett proffered the opinion that with study of the subject would come greater appreciation and with greater appreciation development would naturally follow. Arthur Millier, art editor and critic, stated he felt the art world, including the architect, was standing at the dawn of a second great civilization. Lloyd Wright asked: "Why not quit going to school in Europe and express in your design the effects of your surroundings?"

John C. Austin wondered if modern architecture was not just another stepping stone to even greater things in design. H. Roy Kelley stated that he objected to the crimes that were being committed by the designer in the name of modern architecture and that he felt a great harm was being done the movement. Mr. Kelley said that all architects and designers have not the creative ability to develop new ideas and therefore, the majority must rely upon some outside source for inspiration in designing in the new type.

Julian Garnsey stated each traditional type of architecture expresses some one individual thing in the minds of the people and that the exponents of modernistic architecture cannot expect to express all types and kinds of buildings under one category. Richard Neutra of the Academy of Modern Arts expressed the opinion that modern art was gathering friends all over the world and that here in the United States, where the idea really was born, is the place to bring its greatest development.

CHURCH BUILDINGS

Plans are being prepared by Carleton M. Winslow, Architects Building, Los Angeles, for a parish hall and Sunday School building for the First Baptist church of Pasadena.

ART EVENT FOR SAN FRANCISCO

One of the most extraordinary art events of modern times will be ushered in by the opening of the All-American Exhibition of Sculpture in San Francisco on April 1st, under the auspices of the National Sculpture Society of New York City. Seldom has any country collected for exhibition the work of its living artists; even more seldom has such a collection been a strictly non-commercial enterprise, free for six months to the public. Both for its opportunity to gauge the contribution of contemporary Americans to the art of sculpture, and for its cultural and inspirational effect upon the public, the influence of the Exihibition is nation-wide.

Thirteen hundred exhibits have been entered by 300 American sculptors both here and abroad. The remarkable variety of American sculpture is indicated by the wide scope of this collection, valued at over $1,000,000, which includes tiny bronze figures one inch high, medallions, architectural decorations, garden fountains, war memorials, bas-reliefs, portrait busts, civic monuments, plaques, and heroic groups. Each piece offered for exhibition was judged by a jury of eminent sculptors before its acceptance, and among the pieces accepted are those by young Americans of distinguished talent as well as by nearly all the American sculptors already internationally famous. To encourage the American sculptor by affording his work a chance to be seen, to educate the public artistically by placing within its reach, free of charge, an opportunity to see the best work done by American sculptors today, is the two-fold purpose of this enterprise.

Because the climate is favorable to outdoor sculpture, California was selected for this exhibition, which will occupy the 19 indoor galleries and the spacious grounds of the California Palace of the Legion of Honor in Lincoln Park, San Francisco. Through the co-operation of Mrs. Cornelia B. Sage Quinton, Director of the Palace, and of John McLaren, Superintendent of Parks in San Francisco, special landscaping effects are being arranged as settings for outdoor pieces. The City of San Francisco has presented a million dollars' worth of rhododendrons for this purpose, and the transplanting of these shrubs from Golden Gate Park to Lincoln Park is under the supervision of Mr. McLaren.

RECEIVED MENTION

Two California women received mention in the seventh annual cover competition of *House Beautiful*. Doris Fee of Redwood City won honorable mention and Mary E. McCoy of the Chouinard School of Art, Los Angeles, won student honorable mention.

SAN FRANCISCO ARCHITECTURAL CLUB

Monthly meeting of San Francisco Architectural Club was held March 6th, with President Harry Langley presiding. After the reports of the secretary and treasurer were read and approved the main business of the evening consisted of animated discussions on publicity, new quarters and revamping of the by-laws.

The club has issued its second bulletin which the members hope in time to make a second Pencil Points for members only. The new name selected by popular vote was "CHARRETTE." The committee sincerely hopes that this name will please those who were not present to cast their vote.

The new rules and adjustment of the by-laws, bringing them up to date, will be ready for acceptance by the club sometime in July.

The new quarters committee has two years in which to create permanent quarters for the club.

The old question of raising the dues to take care of added financial liabilities has come to a head. Albert Williams has prepared a budget for the next few years, based on past performances, and if there is to be real progress the dues must be raised. The question will be voted on by the members at the next meeting.

A long suspension list was passed on by the members and the deadwood of the club thrown out. Nonpayment of dues was the principal reason for such a large list.

The atelier quarters have finally been fixed up so that they look presentable. The library has been improved also. The books will be kept under lock and key and only certain men who are known to be around the atelier will have keys.

The engineering class reported an active list of 25 members and the full size detailing class reported 20 members doing good work.

Rome Blas reports that the atelier is taking on a new lease of life. Rome has a new system learned at Harvard for training the order class boys in problem designing so that when they come to the analytique stage they are not total strangers to the design requirements.

Announcement was made that the club will have a picnic at Saratoga Park on May 19th. Every one knows how popular the past picnics have been. If Jack Sly will only stay on his base instead of arguing with the umpire the engineers will win the baseball game and the trophy.

WHAT more appropriate floor for this sun-flooded kitchen and breakfast-nook than these resilient squares of "U. S." Rubber Tile — with wainscoting to match? Richly colorful—these remarkable floors of resilient rubber combine decorative beauty with outstanding practicality. "U. S." Tile is durable, noisless, comfortable and easily cleaned. Its shining surface retains its beauty with minimum upkeep expense and labor. "U. S." Tile is the perfected result of more than a quarter of a century experience by the United States Rubber Company in building fine floors of rubber. Our latest architectural catalog in full color is now off the press. May we send you a copy for your files?

UNITED STATES RUBBER COMPANY

300 SECOND STREET SAN FRANCISCO, CALIF.

O'CONNOR, MOFFATT ELEVATORS

The elevator problem in the O'Connor Moffatt building was given very serious consideration by the Spencer Elevator Company of San Francisco.

The equipment is attractively arranged, the ten main cars in one row. The equipment consists of eight gearless Spencer-Westinghouse passenger elevators lifting 3000 pounds at 450 feet car speed per minute, and two geared passenger-freight (service) elevators which carry 4500 pounds at 350 feet per minute.

The main elevators are provided with every conceivable safety device and appliance dictated by best elevator practice in compliance with the Elevator Safety Orders of the Industrial Accident Commission of the State of California and are also equipped with a series of accessories which are both up-to-date and unique in their conception.

The accessories include department store signals, flashlight night service annunciators, electric fadelight indicators, overhead pneumatic door operators with interlocks and car door operators of compressed air type.

SAN FRANCISCO ARCHITECT BUSY

F. Eugene Barton, architect, Crocker Building, San Francisco, has considerable new work in his office, including two automobile sales buildings in Los Angeles, a hospital in Healdsburg and alterations to a store building on Market street, San Francisco, for the International Business Machines Corp. of New York.

HOUSE FOR H. E. VAN HORN
St. Francis Wood, *San Francisco* B. Cooper Corbett, *Architect*

Full Reversible Hauser Casement Window Fixtures

are used throughout

Also manufacturers of Multiple and Crank Operating Window Devices.
Our special Crank Operating Window Device is installed for sash high above the floor, as in auditoriums and gymnasiums.

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"PEERLESS"

Chosen by Ann Warner

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Nationally Known Domestic Science Editor Selects Peerless Built-in Furniture For Modern Kitchen

Ann Warner, Domestic Science Editor of the San Francisco Chronicle, says she chose Peerless Standardized Units because of the quality and design which has given them a superior position in their field.

Thousands of housewives are today being educated in such schools to demand standardized Built-in Fixtures to make their kitchens efficient workshops where everything is so carefully planned that their work can be done quickly and easily. By specifying "Peerless" you meet this demand with standardized units of a pre-determined value and eliminate the toilsome, tedious process of detailing cabinet work.

Our Plan Service Department, serving as a clearing house for kitchen plans, is in a position to help you solve particularly difficult layout problems and will without charge submit a plan for any kitchen.

Write today for our new "Book of Plans" and literature describing the Peerless line.

BUILT-IN FIXTURE COMPANY
BERKELEY, CALIFORNIA

229

Estimator's Guide

Giving Cost of Building Materials, Wage Scale, Etc.

Amounts quoted are figuring prices and are made up from average quotations furnished by material houses to three leading contracting firms of San Francisco.

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage, at least, must be added in figuring country work.

Overtime in wage scale should be credited with time and a half, Sunday and holidays double.

Bond—1½% amount of contract.

Brickwork—
Common, $33 to $35 per 1000 laid.
Face, $100 per 1000 laid.
Brick Steps, using pressed brick, $1.10 lin. ft.
Brick Walls, using pressed brick on edge, 68c sq. ft. (Foundations extra.)
Brick Veneer on frame buildings, 70c sq. ft.
Enamel, $120.00 per 1000 f.o.b. cars.
Common, f.o.b. cars, $14.50 plus cartage.
Face, f.o.b. cars, $50.00 per 1000, carload lots.

HOLLOW TILE FIREPROOFING (f.o.b. cars in carload lots).

3x12x12 in.	$ 96.00 per M
4x12x12 in.	108.00 per M
6x12x12 in.	156.00 per M
8x12x12 in.	240.00 per M

Rebate 10% cash 10 days.

HOLLOW BUILDING TILE (f.o.b. cars in carload lots).

8x12x5½	$100.00
6x12x5½	74.00

Composition Floors — 18c to 30c per sq. ft. In large quantities, 18c per sq. ft. laid.
Rubber Tile—70c per sq. ft.

Terazzo Floors—50c per sq. ft.
Terazzo Steps—$1.50 per lin. ft.
Mosaic Floors—80c per sq. ft.

Concrete Work (material at San Francisco bunkers) — Quotations below 2000 lbs. to the ton.

No. 3 rock, at bunkers	$1.40 per ton
No. 4 rock, at bunkers	1.40 per ton
Eliott pea gravel, at bnkrs.	1.40 per ton
Washed gravel, at bnkrs.	1.40 per ton
Eliott top gravel, at bnkrs.	1.40 per ton
City gravel, at bunkers	1.40 per ton
River sand, at bunkers	1.00 per ton
Delivered bank sand	1.00 cu. yd.

Note—Above prices are subject to discount of 10c per ton on invoices paid on or before the 15th of month, following delivery.

SAND
Del Monte, $1.75 to $3.00 per ton.
Fan Shell Beach (car lots, f.o.b. Lake Majella), $2.75 to $4.00 per ton.
Cement, $2.51 per bbl. in paper sks.
Cement (f.o.b. Job, S.F.), $2.71 per bbl.
Cement (f.o.b. Job, Oak.), $2.71 per bbl.
Rebate of 10 cents bbl. cash in 15 days.
Atlas "White" .....$ 8.75 per bbl.
Forms, Labors average 22.00 per M.
Average cost of concrete in place, exclusive of forms, 28c per cu. ft.
4-inch concrete basement floor.....13c to 14c per sq. ft.
4½-inch concrete basement floor.....14c to 15c per sq. ft.
2-inch rat-proofing....6½c per sq. ft.
Concrete Steps.....$1.26 per lin. ft.

Dampproofing—
Two-coat work, 20c per yard.
Membrane waterproofing—4 layers of saturated felt, $5.00 per square.
Hot coating work, $2.00 per square.

Electric Wiring — $3.00 to $9.00 per outlet for conduit work (including switches).
Knob and tube average $2.25 to $5.00 per outlet, including switches.

Elevators—
Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing an automatic elevator in four-story building, $2600; direct automatic, about $2500.

Excavation—
Sand, 70 cents; clay or shale, $1.25 per yard.
Teams, $10.00 per day.
Trucks, $21 to $27.50 per day.
Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

Fire Escapes—
Ten-foot balcony, with stairs, $65.00 per balcony.

Glass (consult with manufacturers)—
Double strength window glass, 15c per square foot.
Quartz Lite, 50c per square foot.
Plate, 75c per square foot.
Art, $1.00 up per square foot.
Wire (for skylights), 25c per square foot.
Obscure glass, 25c per square foot.
Note—Add extra for setting.

Heating—
Average, $1.70 per sq. ft. of radiation, according to conditions.

Iron—Cost of ornamental iron, cast iron, etc., depends on designs.

Lumber (prices delivered to bldg.site)
Common, $27.00 per M (average).
Common O. P. select, average, $34.00 per M.

1 x 6 No. 3—Form lumber	$20.00 per M
1 x 4 No. 1 flooring	50.00 per M
1 x 4 No. 2 flooring	49.00 per M
1 x 4 No. 3 flooring	38.00 per M
1 x 6 No. 2 and better flooring	43.00 per M
1¼ x 4 and 6 No. 2 flooring	53.00 per M

Slash grain—

1 x 4 No. 2 flooring	40.00 per M
1 x 4 No. 3 flooring	38.00 per M
No. 1 common run to T. & G.	30.00 per M
Lath	4.25 per M

Shingles (add cartage to prices quoted)—

Redwood, No. 1	$ .90 per bdle.
Redwood, No. 2	.75 per bdle.
Red Cedar	.90 per bdle.

Hardwood Flooring (delivered to building)—

13-16x3¼" T & G Maple	$135.00 M ft.		
1 1-16x2¼" T & G Maple	145.50 M ft.		
⅞x3½ sq. edge Maple	132.50 M ft.		
	13-16x2¼" T&G	⅜x2" T&G	5-16x2" Sq. Ed.
Clr. Qtd. Oak	$220.00 M	$160.00 M	$178 M
Sel. Qtd. Oak	150.00 M	122.00 M	131 M
Clr. Pla. Oak	155.00 M	110.00 M	113 M
Sel. Pla. Oak	132.00 M	79.00 M	97 M
Clear Maple	147.00 M	101.00 M	

Laying & Finishing 16c ft. 15c ft. 13c ft.
Wage—Floor layers, $9.00 per day.

Building Paper—

1 ply per 1000 ft. roll	$4.00
2 ply per 1000 ft. roll	6.00
3 ply per 1000 ft. roll	9.25
Sash cord com. No. 7	$ 1.05 per 100 ft.
Sash cord com. No. 8	1.20 per 100 ft.
Sash cord spot No. 7	1.75 per 100 ft.
Sash cord spot No. 8	1.10 per 100 ft.
Sash weights cast iron	57.00 ton

Nails, $3.25 base.
Belgian nails, $3.00 base.

Millwork—
O. P., $85 per 1000. R. W., $105.00 per 1000 (delivered).
Double hung box window frames, average, with trim, $7.00 and up, each.
Doors, including trim (single panel, 1¾ in. Ore. pine) $7.50 and up, each.
Doors, including trim (five panel, 1¾-in. Oregon pine) $6.50 each.
Screen doors, $3.50 each.
Patent screen windows, 30c a sq. ft.
Cases for kitchen pantries seven ft. high, per lineal ft., $7.00 each.
Dining room cases, $8.00 per lineal foot.
Labor—Rough carpentry, warehouse heavy framing (average), $12.00 per M.
For smaller work, average, $25 to $32 per 1000.

Marble—(Not set), add 50c to 65c per ft. for setting.

Alaska	$1.40 sq. ft.
Columbia	1.40 sq. ft.
Golden Vein Yule Colo	1.70 sq. ft.
Pink Lepanto	1.50 sq. ft.
Italian	1.75 sq. ft.

Tennessee	1.70 sq. ft.
Verde Antique	3.00 sq. ft.

NOTE—Above quotations are for ¾ inch wainscot in large slabs f.o.b. factory. Prices on all other classes of work should be obtained from the manufacturers.

Floor Tile—Set in place.

Verde Antique	$2.75 sq. ft.
Tennessee	1.60 sq. ft.
Alaska	1.35 sq. ft.
Columbia	1.45 sq. ft.
Yule Colorado	1.45 sq. ft.
Travertine	1.60 sq. ft.

Painting—

Two-coat work	30c per yard
Three-coat work	40c per yard
Whitewashing	4c per yard
Cold Water Painting	8c per yard
Turpentine, 93c per gal. in cans and 78c per gal. in drums.	
Raw Linseed Oil	95c gal. in bbls.
Boiled Linseed Oil	98c gal. in bbls.

Carter or Dutch Boy White Lead in Oil (in steel kegs)

	Per. Lb.
1 ton lots, 100 lbs. net weight	11¾c
500 lb. and less than 1 ton lots	12c
Less than 500 lb. lots	12½c

Dutch Boy Dry Red Lead and Litharge (in steel kegs)

1 ton lots, 100 lb. kegs net weight	11¾c
500 lb. and less than 1 ton lots	12c
Less than 500 lb. lots	12½c

Red Lead in Oil (in steel kegs)

1 ton lots, 100 lbs. net weight	13¼c
500 lb. and less than 1 ton lots	13½c
Less than 500 lb. lots	14c

Note—Accessibility and conditions cause wide variance of costs.

Patent Chimneys—

6-inch	$1.00 lineal foot
8-inch	1.50 lineal foot
10-inch	1.85 lineal foot
12-inch	2.10 lineal foot

Pipe Casings — 14" long (average), $5.00 each.

Plastering—Interior—

	Yard
1 coat, brown mortar only, wood lath	$0.40
2 coats, lime mortar hard finish, wood lath	.52
2 coats, hard wall plaster, wood lath	.55
3 coats, metal lath and plaster	1.00
Keene cement on metal lath	1.25
Ceilings with ¾ hot roll channels metal lath	.67
Ceilings with ¾ hot roll channels metal lath plastered	1.40
Shingle partition ¾ channel lath 1 side	.62
Single partition ¾ channel lath 2 sides 2 inches thick	2.20
4-inch double partition ¾ channel lath 2 sides	1.30
4-inch double partition ¾ channel lath 2 sides plastered	2.45

Plastering—Exterior—

	Yard
2 coats cement finish, brick or concrete wall	$1.00
2 coats Atlas cement, brick or concrete wall	1.25
3 coats cement finish No. 18 gauge wire mesh	1.75
3 coats Atlas finish No. 18 gauge wire mesh	2.05

Wood lath, $6.00 per 1000.
2.5-lb. metal lath (dipped) .17
2.5-lb. metal lath (galvanized) .20
3.4-lb. metal lath (dipped) .21
3.4-lb. metal lath (galvanized) .27
¾-inch hot roll channels, $56 per ton.
Hardwall plaster, $15.40 ton; $12.95 in paper sacks (rebate 15c sack).
Finish plaster, $16.40 ton; in paper sacks, $13.85 (rebate 10c sack).
Dealer's commission, $1.00 off above quotations.
Hydrate Lime, $19.50 ton.
Lime, f.o.b. warehouse, $2.25 bbl.; cars, $2.15
Lime, bulk (ton 2000 lbs.), $16.00 ton.
Wall Board 5 ply, $43.00 per M.

Composition Stucco—$1.60 to 2.00 per sq. yard (applied).

Plumbing—
From $60.00 per fixture up, according to grade, quantity and runs.

Roofing—
"Standard" tar and gravel, $5.25 per square for 30 squares or over.
Less than 30 squares, $5.50 per sq.
Tile, $19.00 to $35.00 per square.
Redwood Shingles, $11.00 per square in place.
Cedar Shingles, $10.50 sq. in place.
Recoat, with Gravel, $3.00 per sq.

Sheet Metal—
Windows—Metal, $1.85 a sq. foot.
Fire doors (average), including hardware, $2.15 per sq. foot.

Skylights—
Copper, $1.35 sq. ft. (not glazed).
Galvanized iron, 30c sq. ft. (not glazed).

Stone—
Granite, average, $6.00 sq. foot in place.
Sandstone, average Blue, $3.50; Boise, $2.60 sq. ft. in place.
Indiana Limestone, $2.60 per sq. ft. in place.

Store Fronts—
Copper sash bars for store fronts, corner, center and around sides, will average 75c per lineal foot.
Note—Consult with agents.

Steel Structural—$87.50 per ton (erected). This quotation is an average for comparatively small quantities
Light truss work higher; plain beam and column work in large quantities, less.
Cost of steel for average building (erected), $93.00 per ton.

Reinforcing—
Base price for car load lots, $2.75 100 lbs., f.o.b. cars.
Average cost to install, $23 per ton.

Steel Sash—
All makes, from S. F. stock, 20c to 35c per square foot.
All makes, plant shipment, 22c to 35c per square foot.
(Includes mullions and hardware.)

Tile—White glazed, 75c per foot, laid.
White floor, 75c per foot, laid.
Colored floor tile, $1.00 per ft. laid.
Promenade tile, 80c per sq. ft., laid.

1929 WAGE SCHEDULES FOR SAN FRANCISCO BUILDING TRADES

The following is the award of the Impartial Wage Board for 1929, effective April 1, 1929, in San Francisco and Alameda Counties and recommended for Contra Costa County:

Craft	Journeymen Mechanics
Asbestos workers	$ 8.00
Bricklayers	11.00
Bricklayers' hodcarriers	7.00
Cabinet workers, (shop)	7.50
Cabinet workers, (outside)	9.00
Carpenters	9.00
Cement finishers	9.00
Electric workers	9.00
Electrical fixture hangers	8.00
Elevator constructors	10.00
Elevator helpers	7.00
Engineers, portable and hoisting	9.00
Glass workers	8.50
Hardwood floormen	9.00
Housemovers	8.00
Housesmiths, arch. iron, skilled all branches	9.00
Housesmiths, arch. iron, not skilled all branches	8.00
Housesmiths, reinforced concrete, or rodmen	9.00
Iron workers (bridge & structural) including engineers	11.00
Laborers, building (6-day week)	5.50
Lathers, channel iron	10.00
*Lathers, all other	8.50
Marble setters	10.00
Marble helpers	6.00
Marble cutters and copers	8.00
Marble bed rubbers	7.50
Marble polishers and finishers	7.00
Millmen, planing mill department	7.00
Millmen, sash and door	6.00
Millwrights	8.00
Model makers	10.00
Model casters	9.00
Mosaic and Terrazzo workers	9.00
Mosaic and Terrazzo helpers	6.00
Painters	9.00
Painters, varnishers and polishers (shop)	7.50
Painters, varnishers and polishers (outside)	9.00
Pile drivers and wharf builders	9.00
Pile drivers engineers	10.00
Plasterers	11.00
Plasterers' hodcarriers	7.50
Plumbers	10.00
Roofers, composition	8.00
Roofers, all others	8.00
Sheet metal workers	9.00
Sprinkler fitters	10.00
Steam fitters	10.00
Stair builders	9.00
Stone cutters, soft and granite	8.50
Stone setters, soft and granite	9.00
Stone carvers	8.50
Stone derrickmen	9.00
Tile setters	10.00
Tile helpers	6.00
Auto truck drivers, less than 2500 lbs.	5.50
Auto truck drivers, 2500 to 4500 lbs.	6.00
Auto truck drivers, 4500 to 6500 lbs.	6.50
Auto truck drivers, 6500 lbs. and over	7.00
General teamsters, 1 horse	5.50
General teamsters, 2 horses	6.00
General teamsters, 4 horses	6.50
Plow teamsters, 4 horses	6.50
Scraper teamsters, 2 horses	6.00
Scraper teamsters, 4 horses	6.00

*On wood lath if piece rates are paid they shall be not less than such an amount as will guarantee, on an average day's production of 1600 lath, the day wage set forth.

Eight hours shall constitute a day's work for all Crafts except as otherwise noted.

Plasterer's bodcarriers, bricklayers' hodcarriers, roofers, laborers, and engineers, portable and hoisting, shall start 15 minutes before other workmen, both at morning and noon.

Five and one-half days, consisting of eight hours on Monday to Friday inclusive, and four hours on Saturday forenoon shall constitute a week's work.

Overtime shall be paid as follows: For the first four hours after the first eight hours, time and one-half. All time thereafter shall be paid double time. Saturday afternoon (except laborers), Sundays from 12 midnight Saturday, and Holidays from 12 midnight of the preceding day shall be paid double time. On Saturday afternoon laborers, building, shall be paid straight time.

Where two shifts are worked in any twenty-four hours shift time shall be straight time. Where three shifts are worked, eight hours pay shall be paid for seven hours on the second and third shifts.

All work shall regularly be performed between the hours of 8 A. M. and 5 P. M., provided, that in emergencies or where premises cannot be vacated for work by mechanics until the close of business, men then reporting for work shall work at straight time; but any work performed after midnight shall be paid time and one-half except on Saturday afternoons, Sundays, and holidays, when double time shall be paid.

Recognized holidays to be New Year's Day, Decoration Day, Fourth of July, Labor Day, Admission Day, Thanksgiving Day and Christmas Day.

Men ordered to report for work, for whom no employment is provided, shall be entitled to two hours pay.